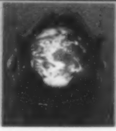
DATA BREACH BILLS
Credit unions are pushing for state laws based on the PCI security standard. **PAGE 6**



BUSINESS FIRST, GREEN SECOND
Christopher Mines says IT buyers are interested in green technology, but that has yet to translate into action. **PAGE 24**

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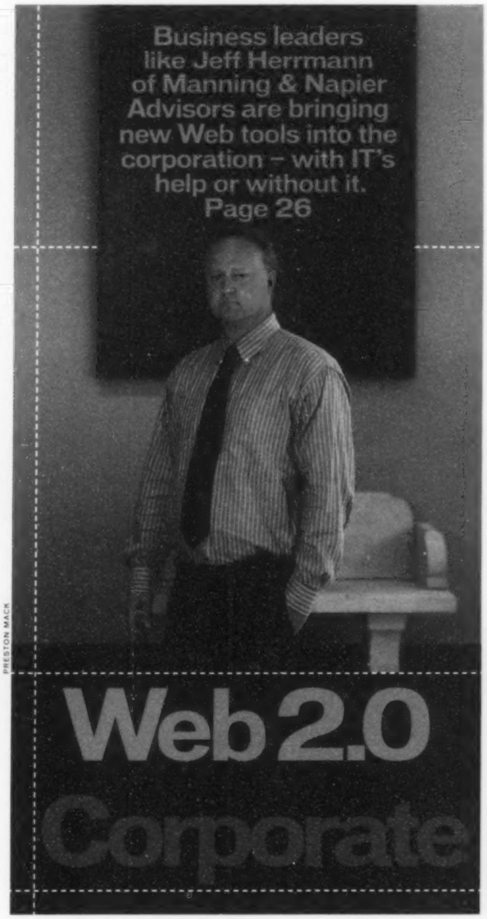

Business leaders like Jeff Herrmann of Manning & Napier Advisors are bringing new Web tools into the corporation – with IT's help or without it. Page 26

Web 2.0 Corporate

PRESTON MACK

IT Execs Gird for Hurricane Season

Ready to test upgrades implemented after 2005 disasters

BY BRIAN FONSECA

While bracing his IT systems to weather another hurricane season, Max Prather can't help but recall just how swiftly undetected weak points in his IT disaster recovery plan were cracked by Hurricane Katrina.

"We thought we were prepared but did not count on a complete disaster. It may have well been a nuclear bomb; that's how much it affected our business," said Prather, IT manager at the Louisiana Organ Procurement Agency in Metairie, La.

The nonprofit organization's offices sit less than eight miles west of New Orleans, which was devastated by the massive storm in August 2005.

"I would hate to see any company go through [such] a disaster to see exactly what's wrong with its plan," Prather said.

Last Friday marked the official beginning of the Atlantic hurricane season, which runs from June 1 thru Nov. 30. Weather forecasters say conditions this year are ripe for spawning several major storms.

> **We had a couple of close calls a few years ago, and we knew we needed to do something with our data.**
>
> **THOMAS COMELLA,** CIO, NEIGHBORHOOD CENTERS INC.

Prior to late 2005, the organ procurement agency's disaster plan focused on having some patient and employee data hosted on NeoSpire Inc. servers in Dallas. However, when Katrina hit New Orleans, employees scattered and the agency lost power, phone service and Internet access, exposing gaping holes in its electronic communications strategy, said Prather.

After the storm, the agency deployed Neverfail for Micro-

Hurricanes, page 12

Update Gives IT Services Guidelines a Wider Reach

New version of ITIL puts focus on strategic issues, not just operations

BY PATRICK THIBODEAU

The IT Infrastructure Library, a best-practices guide to managing technology operations as a set of services, may face higher levels of scrutiny as it attempts to delve deeper into IT management issues via an update released last week.

Until now, ITIL has specified methodologies for running help desks and other IT operations, and for managing processes such as change management. ITIL Version 3 changes the focus from purely operational concerns to more strategic IT issues, such as enterprise architectures and IT-business alignment. The new version is intended to provide ITIL users with a broader view of what IT service management encompasses.

INSIDE
The ITSMF's U.S. chapter says an online election may have been tampered with. Page 53

But something else has taken root in the seven years since ITIL was last updated: blogging. Now there's a community of IT professionals who are blogging on service management issues, including the development and adoption of ITIL. Among them is Charles Betz, a chief enterprise architect at a Fortune 50 company based in the U.S. that has a $1.3 billion IT budget.

Although ITIL Version 3 focuses directly on the work that Betz does, he said in an interview last week that he "was not really aware of a conscious outreach to the enterprise architecture community" by ITIL officials as part of the

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_INFRASTRUCTURE LOG

_DAY 78: Our energy costs are staggering! We're spending more to power and cool the hardware than we did to buy it in the first place. We can't get enough power into our data center.

_It's too darn hot. Gil moved the entire data center to the Arctic Circle. This commute is ridiculous.

_DAY 81: I'm taking back control with IBM energy management solutions. IBM services helped us identify inefficiencies and change our entire approach to power and cooling. The IBM System z™ server's high utilization and unique design is très cool. We no longer have to feed the never-ending power appetite of our old, high-density environment. We've moved the data center back where it belongs.

_Gil doesn't want to hear about it. He says he's snow deaf.

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06.04.07

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8 **Q&A: Karen Evans,** the U.S. government's top IT executive, says she wants federal agencies to stay on the leading edge of technology — but not necessarily the cutting edge.

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Women like Susie Wee of HP's Mobile and Media Systems Lab are bringing a fresh outlook to the world of computer gaming and blurring the line between what's playful and what's productive. **Page 32**

GARY LAUFMAN

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How Vista Is Really Doing

SOFTWARE: Have 40 million copies been shipped or not? *Computerworld* gets to the truth behind the hysteria.
www.computerworld.com/software

Apple Is Still Mostly Ignoring the Enterprise

SERVERS: Service and support are still problematic, leading one Apple observer to posit that the company's motto might be: "We're not going after the enterprise. The enterprise is coming after us."
www.computerworld.com/servers

Hacking Firefox: The Secrets of about:config

NETWORKING: Discover more than 20 behind-the-scenes tweaks for speeding up page loads, reducing memory drain and making the interface behave the way you want it to.
www.computerworld.com/networking

New Ways to Get Rid of Old PCs

HARDWARE: The U.S. may still lag behind much of the world in regulating e-waste, but there are ways to responsibly and safely dispose of your outdated equipment.
www.computerworld.com/hardware

Kiss Tedious Tasks Goodbye: Everyday Scripting With Ruby

DEVELOPMENT: Are you still immersed in daily drudgery that could be easily automated with simple coding? One book aims to show you how to break free.
www.computerworld.com/development

Do Away With 'Free' Storage

STORAGE: Companies should not only aim to provide a cross-charging mechanism for recouping costs, but also encourage more efficient usage of storage, says columnist Jim Damoulakis.
www.computerworld.com/storage

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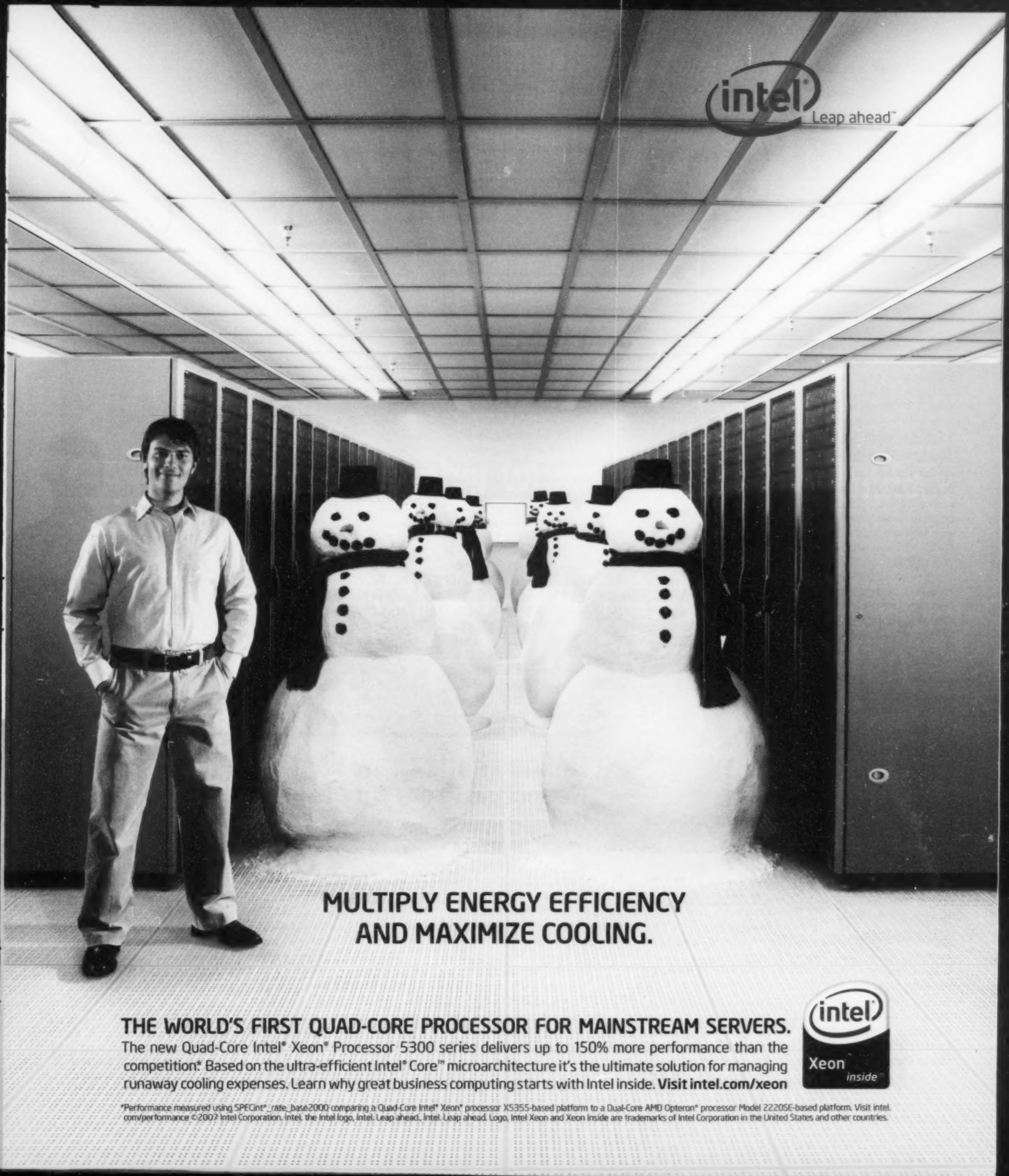

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AT DEADLINE

Dell to Lay Off 8,800 Workers to Cut Costs

While reporting a $759 million profit for the third quarter, Dell Inc. announced it will lay off 10% of its 88,100 workers. Both its profit and revenue of $14.6 billion in the quarter were well above Wall Street analysts' expectations. Dell said the layoffs will come over the next 12 months from all regions, customer segments and job functions. The move is part of Dell's continuing effort to boost profits.

ChoicePoint Settles States' Complaints

ChoicePoint Inc. has agreed to pay $500,000 in fines and change the way it screens new customers under a settlement with 43 states and the District of Columbia over complaints about a 2004 data breach. The data broker disclosed in early 2005 that the personal records of some 163,000 consumers had been exposed. In 2006, ChoicePoint agreed to pay $10 million in fines and $5 million to affected consumers in a settlement with the Federal Trade Commission.

IBM Cuts 1,500 Services Workers

IBM has laid off 1,573 employees as part of an overhaul of its services unit. Most of the layoffs came from IBM's North American services operation. In April, Chief Financial Officer Mark Loughridge announced that the company was planning to restructure the unit to cut costs.

Brocade to Pay $7M SEC Penalty

Brocade Communications Systems Inc. has agreed to pay a $7 million penalty to settle charges of stock-option backdating fraud. The payment concludes a civil action brought by the U.S. Securities and Exchange Commission. Brocade said it does not expect the U.S. Department of Justice to take any action in connection with the alleged fraud.

Credit Unions Bank on State Data-Security Laws

Groups push bills to protect payment card info, get retailer reimbursements

BY JAIKUMAR VIJAYAN

As an increasing number of states consider bills seeking to codify pieces of the Payment Card Industry (PCI) Data Security Standard into law, a common thread is emerging: the involvement of credit unions in pushing the legislation.

California legislators last week held a hearing on a bill that would set new data security and breach-notification requirements for all organizations processing credit and debit card transactions in the state. Businesses hit by breaches would also have to reimburse affected banks and credit unions for the costs of alerting customers and reissuing cards.

The chief proponent of the bill, which was introduced in the state assembly in February, is the California Credit Union League. The CCUL's sponsorship of the proposal mirrors recent efforts by credit union associations to pass similar measures in Minnesota and Texas — successfully in the former state and unsuccessfully in the latter.

Burden of Breaches

The need for such legislation is being driven by the burgeoning costs that many credit unions are having to bear as a result of security breaches at merchants, said Keri Bailey, a lobbyist for the CCUL.

"This is an issue of fundamental fairness," Bailey said. "Right now, the burden is entirely on the financial institution." The federal Gramm-Leach-Bliley Act requires banks and credit unions that issue cards "to do a whole lot to protect people's data," she said. "But the folks accepting this data [for transactions] have no skin in the game."

Individually, large and midsize credit unions can easily end up shelling out between $500,000 and $750,000 annually in breach-notification and card replacement costs, Bailey said. And those figures don't include any fraud-related charges, she noted.

Most credit unions are not-for-profit institutions, Bailey said. As a result, it's harder for them to absorb the costs of responding to retail security breaches than it is for banks, she added.

The bill in California has goals similar to those of the Plastic Card Security Act that was signed into law in Minnesota two weeks ago. The requirements included in the Minnesota law and the California bill incorporate elements of the PCI standard, which was developed by the five major credit card companies.

Another PCI-derived bill was unanimously approved by the Texas House of Representatives in early May but didn't make it through that state's Senate before the latest biennial legislative session ended last week.

Such measures are needed to prod retailers to become more serious about their data security practices, said Steve Rowen, an analyst at Retail Systems Alert Group, a consulting firm in Newton, Mass.

Despite the negative publicity generated by high-profile breaches such as the one disclosed in January by The TJX Companies Inc., retailers haven't had to bear much fiscal responsibility for security lapses, Rowen said. PCI enables credit card companies to assess financial penalties when data breaches occur. But, he said, "to my knowledge, no retailer has been forced to pay any actual costs" beyond its own expenses.

However, Jon Hurst, president of the Boston-based Retailers Association of Massachusetts, voiced concerns about Minnesota's new law and the proposed statute in California, which he described as "a one-sided proposal."

Retailers already pay the credit card companies for fraud-related costs upfront via so-called interchange fees, Hurst said. If credit unions and small banks want to be reimbursed for their breach-related costs, he added, "they should be working with [bigger] banks and the card associations to fix the system, and not trying to pass laws to bring more money their way." ▸

Playing the Security Card

If California's AB 779 is approved and signed into law, it will:

- **Prohibit retailers and other merchants from storing** data such as card verification values and PINs in their systems.
- **Require the use of strong encryption routines and user access controls** on card and account data.
- **Compel businesses to disclose more details about breaches,** including the types of data that may have been compromised.
- **Enable financial institutions to identify the source of data breaches** when they send notices to their customers.

Online Thefts Draw Fast Response From City Hall

Treasurer spots illegal transfers; security tightened

BY TODD R. WEISS

An online thief or group of thieves stole $449,000 from a bank account that belongs to the city of Carson, Calif., last month, likely using a Trojan horse program placed on the city treasurer's laptop to gain access to the required user-name and password.

The thefts, which City Treasurer Karen Avilla spotted when she made her daily online inspections of Carson's bank account balances, prompted officials at City National Bank in Beverly Hills, Calif., to tighten security procedures on Carson's accounts.

Avilla said last week that Carson is now required to register the specific computers that will be used for online transactions at City National. She and other end users must also correctly answer a series of questions in order to gain access to the bank accounts.

Meanwhile, an IT consultant who was brought in to help the city before the thefts is now evaluating its data security protections, she said.

Unauthorized fund transfers were processed on May 23 and May 24, according to Avilla. After she reported the thefts, a computer forensics team at City National examined her city-issued laptop and identified the Trojan horse as the likely entry point for the thefts.

Avilla said she doesn't know how the Trojan horse got onto her system. In her office, her laptop connects to a T1 high-speed line. But when working remotely, Avilla accesses the Internet via wireless connections, which could have enabled the thieves to infect her machine. The forensics investigators "are not sure if it was a random or targeted attack," Avilla said.

She noted that so far, 90% of the stolen money has been frozen by the receiving banks and will be returned to the city. The remaining $45,000 is still being traced by law enforcement authorities. ▸

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Top IT Exec Says Feds Look To Be Leading-Edge on Tech

BY PATRICK THIBODEAU

Karen Evans *is the U.S. government's top IT executive — essentially, its de facto CIO. Her official title is administrator of the office of electronic government and IT at the White House Office of Management and Budget. Evans, who is also director of the Federal CIO Council, recently spoke with* Computerworld *about the government's IT operations. Excerpts follow:*

Federal IT isn't always seen as cutting-edge. "Antiquated," "stovepipe" and "legacy" are words frequently used to describe it. Are they still apt? "Antiquated," "stovepipe" and "legacy" is probably accurate at several of the major departments, but that isn't necessarily a bad thing. I don't think the government needs to be on the cutting edge, but we do want to be on the leading edge. For example, when the president wanted to make sure that we were improving security and that federal employees had good [interagency] credentialing verification procedures, the technology didn't exist at the time. We made it very clear what our requirements were, and industry came through and invented the technology that we needed.

Now we have an integrated solution between our logical systems and our physical systems. That's a huge undertaking. Normally, you would think [it would take] five to 10 years for the government to do that. We did all of that work in less than two years.

What kind of efficiencies are you getting from that? What was happening in the past is when you moved from Agriculture to Justice, they would run all the same business processes again to revalidate that you are who you are. We're not doing that anymore. In some of these positions, it would take six months to a year to get somebody to just move [to another agency]. So we set a metric of 45 days from the time a job is posted to the time the person actually appears on the job site, regardless of whether it's an internal candidate or an external candidate.

The aging of government IT workers and outsourcing are sometimes tied together. . . . Sometimes.

Are they tied together in your mind? The real short answer is no. We have done surveys and identified our skill gaps. A lot of things we're talking about that you would [put out to bid] — like a data center type of service and some of these hosting services — those aren't some of the areas that we have identified as critical skill gaps for us and our workforce.

We've actually broken them out into four areas: project management, security, enterprise architecture and solution architectures. We have the authorization to fill vacancies in these skill gaps, so what we're working on is major recruitment activities, like internships [and] outreach to the universities. We have been quite successful in the cybersecurity area. But [recruits] have a tendency to go to the intelligence agencies, because people get pretty jazzed about working [there].

What changes have you made to improve IT security within the government, and what still needs to be done? We just recently released a policy dealing with Microsoft and standard configurations [for Windows Vista and XP]. When I really analyze what the issues are associated with our security going forward, we have a couple. The first part is people — gosh darn, it's people. [Chuckles.] People really have to understand the purpose of the information and how to secure the information.

The other part is basic types of system development and maintenance, like configuration management. With the policy that we just released, this is our opportunity to standardize the configuration [of Windows] all the way across the board in every federal agency, down to every desktop. When the government has a standard configuration, it makes it so much easier to maintain patches. That really is the heart of the issue. When you get down to "Why did that incident happen?" — a lot of times, it's because that particular system wasn't fully patched. We are also telling vendors that this is the standard configuration, so you have to make sure your products work on this configuration. That's a big change. ▸

$12M IT Upgrade Links Remote Nevada Prisons

WAN accelerators speed satellite communications

BY TODD R. WEISS

Faced with remote desert locations and lacking an overall network infrastructure, the Nevada Department of Corrections is turning to a satellite-based network combined with a key add-on — WAN acceleration appliances — to connect 24 prisons across the state.

The new satellite connectivity is part of a $12 million effort to replace the department's 20-year-old DOS-based applications, officials said. IT personnel were set to begin using the new system last week.

The project began about 18 months ago when internal developers began building the Nevada Offender Tracking Information System (NOTIS), a Web-based application that will allow 3,000 prison employees to more efficiently manage the state's 13,000 inmates, said Dan O'Barr, infrastructure architect for the Carson City-based agency.

The Oracle-based NOTIS is a heavily customized version of the TAG Offender Management System from Vancouver-based Syscon Justice Systems Ltd., he added.

During the development of NOTIS, IT personnel determined that satellite-based connectivity was the only option for sharing data because of the remote locations of most of the prisons. However, they also quickly concluded that they needed to find a way to address the performance problems of such networks.

An Internet search by IT workers a year ago led the department to evaluate WAN acceleration tools from Sunnyvale, Calif.-based Blue Coat Systems Inc. and Seattle-based F5 Networks Inc., O'Barr said.

The workers found that the Blue Coat SG appliance could load Web pages in less than eight seconds, a vast improvement over the several minutes it could take without the device, he added.

While the F5 appliances also performed well, the state went with Blue Coat because of its Web caching and filtering features, O'Barr said. The filtering capabilities allow officials to control the online activities of prison employees.

Blue Coat's share of the overall IT contract was $200,000 to provide one SG appliance to each prison facility along with technical support, O'Barr said.

In the past, only the two largest prisons in the system, in Carson City and Las Vegas, were linked for direct data transfers. For the rest of the prisons, remote and harsh desert locations made them good for physical security but bad for electronic communications, O'Barr noted.

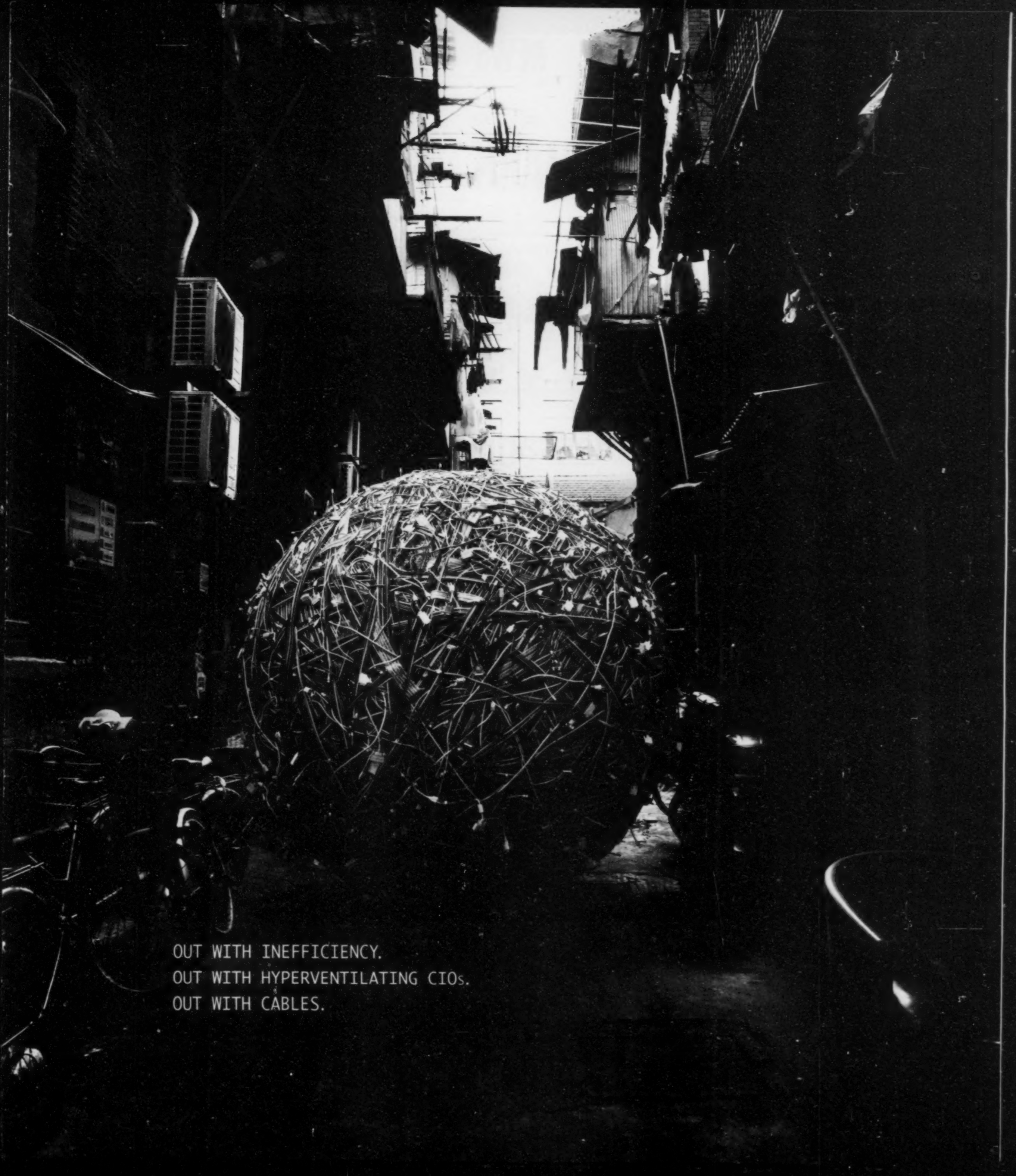
Robert Whiteley, an analyst at Forrester Research Inc., said WAN acceleration tools can help companies efficiently connect remote and branch offices to distant data centers.

The Blue Coat technology also gives the Nevada prison system the option of enabling acceleration for mobile devices, Whiteley said.

"The killer in satellite networks is latency — the delay it takes to transfer data," he said. "Blue Coat accelerates it and makes it work." ▸

SHAPUTIS PHOTOS

Nevada's remote prisons now rely on a satellite network to stay connected.



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OUT WITH HYPERVENTILATING CIOs.
OUT WITH CABLES.

BRIEFS

Motorola Plans to Cut 4,000 More Workers

Motorola Inc. has announced that it will lay off 4,000 workers as part of a cost-cutting program started in January. The company also said a previously announced layoff of 3,500 workers will be completed by June 30. Motorola said that the latest cutbacks will result in annual savings of $600 million starting in 2008. Motorola blamed its financial problems on declining revenue from low-end cell phones.

SAP Names CTO In Realignment

SAP AG has named Vishal Sikka as its first chief technology officer. The appointment of Sikka, previously senior vice president and chief software architect at SAP, is the latest move in a reorganization prompted by the resignation two months ago of Shai Agassi, former president of the SAP products and technologies group in the U.S. Sikka will report to CEO Henning Kagermann.

OMB Calls for Fed Security Plans

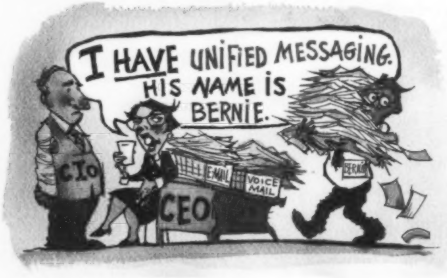
The White House Office of Management and Budget has announced that federal agencies have 120 days to develop and implement their own security breach notification policies. U.S. agencies have been instructed to review their use of personally identifiable information and to develop plans to reduce or eliminate the unnecessary use of Social Security numbers and other personal data.

Private Equity Firm To Purchase CDW

Computer reseller CDW Corp. has agreed to be acquired by private equity investment firm Madison Dearborn Partners LLC for $7.3 billion. The deal is expected to close by the end of the third quarter. Since negotiations with Madison Dearborn were private, CDW must actively solicit bids from other interested parties before closing the deal, the company said.

[ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL]


I HAVE UNIFIED MESSAGING. HIS NAME IS BERNIE.
C.I.O
CEO
E-MAIL
VOICE MAIL
BERNIE

MATTHEW FAULKNER

Unified Messaging Calls Get . . .

. . . a busy signal from top management. After six years of successful but limited deployment of unified messaging at AAA East Central, Mike Gladish is still getting the go-slow message from senior executives. Gladish, who's the director of corporate technology at the Pittsburgh-based travel company, is a strong advocate of tying together voice mail and e-mail. "You can get to the right person at the right time with unified messaging," he says. "You can remove human latency from communications." Gladish says he'd "have a big problem" if he tried to take the technology away from AAA staffers who use it now. But he admits that the ROI of unified messaging is hard to define for the top brass, which is part of the reason AAA is keeping the brakes on wider deployment. And it's not just AAA. As the president of Joint Users of Siemens Technologies-United States (JUST-US), Gladish hears from fellow users who say they are running into similar roadblocks at their companies. That's why JUST-US has doubled the number of sessions on unified messaging at its conference this week in Orlando to include case studies on how to convince top executives of the technology's benefits. But Gladish says some execs will never be persuaded. After all, he points out, many of them have their assistants print their e-mails and screen their calls. And those flesh-and-blood unified messaging systems will even fetch coffee on occasion.

Execs are holding back unified messaging, says GLADISH.

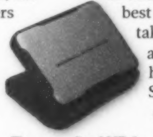
Before you hit the road . . .

. . . check out MyRide.com. Americans' love affair with their cars is legendary. (That's why we need all those AAA maps.) In fact, according to Mark Canon, chief product officer at Autobytel Inc. in Irvine, Calif., people often start researching their next cars within a year of getting a new one. Today, they begin their hunt with a general search engine like Google. Beginning June 21, they can start looking for their replacement road machines at MyRide.com, a specialized search engine that Canon says "attacks the inefficiencies" of Google and its ilk by focusing on up to 1 million auto-related terms and their relationships to deliver more relevant results. "We're specific and narrow," he says. MyRide.com will include reviews, videos, photos and other content from experts and enthusiasts who are seeking car parts or just fantasizing about their next new ride. After all, Canon adds, "it's OK to cheat on your car."

CANON: Go ahead. Cheat on your car.

Road warriors wreak havoc . . .

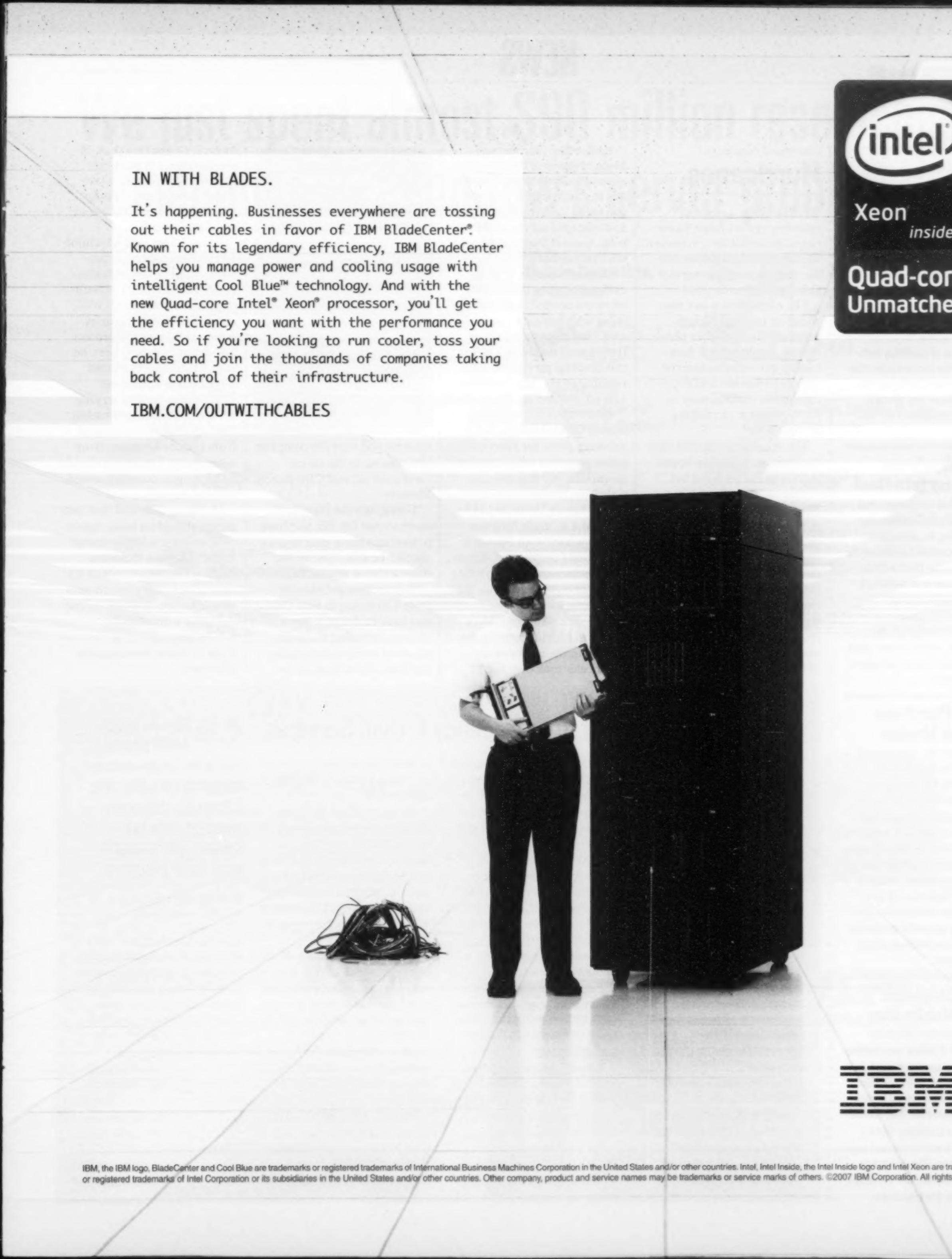
. . . on their notebooks. That was the impetus for Spokane, Wash.-based Itronix Corp. to design its semirugged GoBook VR-2 notebook and its fully rugged cousin, the MR-1. These computers can handle extreme temperatures, vibrations and even butterfingered users who drop them on concrete or spill coffee on the keyboards. Plus, they're designed to last up to seven years, says Ben Thacker, vice president of strategic marketing at Itronix, part of the Computing Technology Division of Falls Church, Va.-based General Dynamics Corp. That kind of longevity is important to many users who need ruggedized computers, Thacker says, because they often spring for special mounting in vehicles and extra security features. Both portable units are equipped with the company's new DynaVue touch-screen display, which is designed to be viewed in direct sunlight. The VR-2 ships this week, and the MR-1 becomes available in August. Starting prices are $3,500 and $4,450, respectively.


The ruggedized MR-1 notebook's dimensions are 1.5 by 6 by 4.3 in.

Get traffic intelligence . . .

. . . and get it in real time. If your business is dependent on workers driving from Point A to Point B, Marc Prioleau, vice president of marketing at deCarta Inc. in San Jose, thinks you need better data to plot routes for them. Ideally, he says, you should be able to predict "how I am going to deploy my people on the road tomorrow." Prioleau says deCarta is trying to answer that question by merging predictive data, like the average traffic flow on a stretch of road on a given day and time, with incident data, such as wrecks, to establish the best route for drivers to take. He also wants to add data from what he calls "probes." Such vehicles are equipped with GPS and radio links that let them automatically report their speed as they travel the highways. Such aggregate information will give a fuller picture of a region's road conditions. But Prioleau thinks his company needs to go one step further and account for known traffic anomalies, such as the extra traffic generated by a sporting event or rock concert, and unpredictable events like a hurricane or earthquake. By the end of the month, deCarta will update its Traffic Manager software to include the known anomalies, so your drivers can avoid predictable traffic jams. As for the unknown ones, presumably they aren't so unknown that deCarta can't get to work on them as well. ▸

3.7B
Hours Americans spend stuck in traffic annually, says the Texas Transportation Institute.



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BRIEFS

Microsoft Postpones Developer Event

Microsoft Corp. has scrapped plans to hold its Professional Developers Conference this October in Los Angeles. The company said the event will be held at a later, as-yet-unannounced date that is "better timed with the next wave of platform technologies." New technologies like Windows Server 2008 and the Katmai database are already available to developers for testing, it said.

Google Confirms FTC Probe Into Deal

Google Inc. has confirmed that the Federal Trade Commission is investigating its proposed $3.1 billion purchase of online advertising seller DoubleClick Inc. Google said it is confident that the FTC will approve the deal. An FTC spokesman declined to comment on the investigation, which comes after privacy groups filed a complaint with the agency.

BMC to Purchase Analytics Vendor

BMC Software Inc. has agreed to buy ProactiveNet Inc. as part of an effort to extend the analytics offerings in its line of business service management tools. Terms of the deal, which is expected to close within 30 days, were not disclosed. ProactiveNet sells tools that collect, analyze and monitor data from IT systems. They are designed to alert IT staffers to potential problems and provide suggestions about how to fix them.

Cisco Completes $3.2B WebEx Buy

Cisco Systems Inc. has completed its $3.2 billion acquisition of WebEx Communications Inc. Cisco said that it will maintain WebEx's business model of selling subscriptions for Web-based collaboration services. WebEx will become a wholly owned subsidiary of Cisco. The company said that no layoffs are expected to result from the purchase.

Continued from page 1

Hurricanes

soft Exchange, a disaster recovery system from Austin-based Neverfail Inc., to ensure uninterrupted employee connectivity throughout service shutdowns, Prather said.

The organization has also added an internal backup generator and fail-over phone system, implemented daily backup procedures, and constructed a hot site and duplicate server environment in its Shreveport, La., facility, Prather noted.

The organ procurement agency continues to use the hosted servers in Dallas, he added.

Thomas Comella, CIO at Neighborhood Centers Inc. in Houston, also updated his company's backup plan following a major hurricane. Comella said he decided to abandon the company's policy of storing backed-up data in a nearby facility once he saw how employees were scrambling to evacuate from Houston ahead of Hurricane Rita in 2005.

Earlier this year, the nonprofit operator of community centers and educational facilities in southeastern Texas began using ViaRemote, a backup and managed services offering from Arsenal Digital Solutions USA Inc. in Cary, N.C.

"We had a couple of close calls a few years ago, and we knew we needed to do something with our data," Comella said. "My main goal for this [hurricane] season was to get this [backup service] up and running so my data would be safe off-site and out of the city."

Other users say spending money on unused disaster recovery plans for years can prove prescient when a major storm hits. For example, the Calcasieu Teachers and Employee Credit Union in Lake Charles, La., made little use of its contract with SunGard Availability Services in Wayne, Pa., to provide backup systems for about eight years prior to Hurricane Rita.

But when that storm hit, a SunGard Mobile Data Center housed in the trailer of an 18-wheeler took over the IT systems and kept the company in business, so the investment paid off, said CEO Bruce Thomas.

> **We thought we were prepared but did not count on a complete disaster. It may have well been a nuclear bomb; that's how much it affected our business.**
>
> **MAX PRATHER,** IT MANAGER, LOUISIANA ORGAN PROCUREMENT AGENCY

"Going into the [SunGard] contract, we felt like you have to look at what is your biggest threat," he said. "For us, the biggest threat is a hurricane."

Researchers at Colorado State University in Fort Collins have said that 17 named storms, including five with winds of more than 115 miles per hour, could form in the Atlantic Ocean this year. In comparison, a typical hurricane season includes two major storms, noted Philip Klotzbach, a research associate at the school.

James McManus, a technology risk management professional at Jefferson Wells International Inc., a consulting firm in Brookfield, Wis., suggested that companies take several steps to protect against hurricanes. First, he said, IT managers should distribute to employees USB thumb drives carrying critical data and application backups that could be used from remote locations in an emergency. The drives should be kept up to date and stored off-site, he said.

McManus also said that companies should set aside time to perform a complete business-impact analysis, including ranking the importance of systems to determine which ones should be brought back online first after a disaster. ▸

Todd R. Weiss contributed to this story.

Florida Firm Offers Free Emergency E-mail Services

WITH THE ARRIVAL of the 2007 hurricane season last week, the Florida Chamber of Commerce and antispam and antivirus vendor AppRiver LLC jointly began offering free emergency e-mail protection to businesses in the state.

The three-year-old Digital Disaster Preparedness program is available from June 1 to Nov. 30 to help Florida businesses prepare at least some of their IT systems for potential fallout from major hurricanes.

Any business with an Internet domain name can sign up and activate the free service online in less than 10 minutes, once a hurricane warning has been issued in its area, according to AppRiver and the Chamber of Commerce.

"If ever there was a vulnerable state, it would be Florida," said Scott Cutler, an executive vice president at Gulf Breeze, Fla.-based AppRiver. "We have water everywhere."

Ed Stalcup, CIO at Gateway Insurance Agency LC in Fort Lauderdale, Fla., said AppRiver's emergency e-mail services were a lifesaver for the 100 users at his company during Hurricane Wilma two years ago.

Both of Gateway's offices were without electric service for two weeks after the powerful October 2005 storm hit the south Florida coast. Nonetheless, he said that operations continued because AppRiver pushed e-mail through its own data center servers to Gateway's staff agents.

"For an insurance agency, it's extremely critical to get back after the storm because we need to help our clients get in touch with their insurers," Stalcup said.

Gateway had been using AppRiver's antispam and antivirus services before adding the e-mail protection services to its contract with the vendor prior to the storm.

The AppRiver services cost less than a stand-alone, remotely located e-mail replication and backup protection system, which might cost as much as $40,000 to $50,000, Stalcup noted.

AppRiver began offering e-mail disaster recovery services several years ago to take advantage of excess data center capacity, Cutler said. The company can store and queue up incoming e-mail and hold it for a customer, forward it to a remote server or make it available online via a Web browser, he added.

Cutler said the AppServer will be programmed to automatically respond if a customer's e-mail server shuts down during a storm, taking at least one critical task off the table for IT workers.

"We're a company in Florida," Cutler said. "We know what it feels like to be staring at a Category 5 hurricane."

Two years ago, when hurricanes Katrina and Rita hit the Gulf Coast, some 20 Florida businesses signed up to use the emergency e-mail services, Cutler said. No companies signed up during last year's unusually mild hurricane season, he added.

> **For an insurance agency, it's extremely critical to get back after the storm because we need to help our clients get in touch with their insurers.**
>
> **ED STALCUP,** CIO, GATEWAY INSURANCE

The service could prove important for the state's businesses this year, according to Ken Reeves, senior meteorologist and director of forecast operations at State College, Pa.-based AccuWeather Inc.

"It looks like Florida is in the bull's-eye and most at risk," Reeves said. "Businesses need to harken back to just three years ago and make sure they are prepared. The risk is just as high."

– TODD R. WEISS AND BRIAN FONSECA

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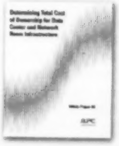

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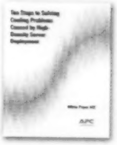

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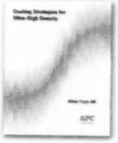

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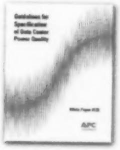

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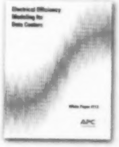

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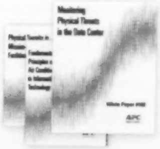

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GLOBALDISPATCHES

An International IT News Digest

Computer Glitch Cancels Japan Flights

TOKYO

HUNDREDS OF domestic flights in Japan were canceled or delayed last week because of a computer glitch at All Nippon Airways Co.

The glitch hit data flowing between the Tokyo-based airline's main reservations host computer and intermediate computers that handle downstream connections to terminals in airports, said airline spokesman Rob Henderson.

The problem slowed the data flow, causing a backlog that eventually clogged the system, Henderson said. The slowdown caused the airline to cancel 130 flights and to delay another 306 by at least an hour on May 27.

The airline has not yet determined the cause of the problem, he added.

Henderson said that the airline was operating on a near-normal schedule by the next day.

The airline is in the process of installing new computer systems from Unisys Corp. to run the vendor's AirCore reservation and departure control software. AirCore will be installed in phases starting late this year through 2012, Henderson said.

In a joint statement, the airline and Unisys noted that they have yet to determine whether the problem can be traced to the old or new systems.

■ MARTYN WILLIAMS, IDG NEWS SERVICE

EU Official Expects Airline Data Pact

AMSTERDAM

EUROPEAN DATA Protection Supervisor Peter Hustinx said late last month that he expects the U.S. and the European Union to reach an agreement on how to share information about passengers flying across the Atlantic — but not by their July deadline.

"It's going to be tough, but there will be an agreement," he said in an interview at the European Data Protection Intensive conference held here.

Hustinx said he expects that an interim agreement now in place will be extended while negotiations continue toward a long-term pact.

Without an agreement, airlines face either being sued by European data-protection authorities for releasing passenger information to the U.S., or losing landing slots in the U.S. and getting hit with hefty fines there if they don't hand over the data.

An earlier agreement that allowed the sharing of data with U.S. authorities was thrown out by the European Court of Justice in May 2006. The court allowed an interim agreement, broadly based on the first agreement, to be implemented until a new one could be reached.

■ PAUL MELLER, IDG NEWS SERVICE

NEC Employees, Firms Faked Software Orders

TOKYO

A GROUP OF 10 employees at Tokyo-based NEC Corp. worked with 17 contractors to fraudulently inflate the company's costs by $18 million over seven years ending in March 2006, the company disclosed last week.

The news comes just a year after the company was forced to make accounting changes after other workers created fake transactions in its NEC Engineering Ltd. division.

Tax examiners discovered the latest scam during an examination of NEC's books for fiscal 1999 through March 2006, the company said.

They found that the accused employees had persuaded 17 contractors to pad orders or create fictitious orders for software, maintenance and installation services purchased by NEC, the company said. The workers collected $4.1 million in kickbacks, it said.

GLOBAL FACT

109M

Number of broadband subscribers in the Asia-Pacific region in 2006, up 25% from 2005.

SOURCE: IN-STAT, SCOTTSDALE, ARIZ.

NEC has taken "strict disciplinary actions" against the employees that could eventually lead to legal action, said spokesman Kosuke Yamauchi. However, he said he did not know whether the workers had been fired.

Yamauchi also declined to name the contractors involved or to say whether NEC planned to continue doing business with them.

■ BEN AMES, IDG NEWS SERVICE

Germany Strengthens Antihacking Laws

BERLIN

THE GERMAN government has approved a law that strengthens earlier legislation aimed at preventing hacker attacks on IT systems.

The legislation, approved late last month, aims to crack down on a sharp rise in computer attacks in both the public and private sectors of the country.

Violators of the new law face up to 10 years in prison for major offenses.

Other punishable cybercrimes include denial-of-service attacks and computer sabotage attacks on individuals. Previous laws were limited to attacks on the computer systems of businesses and public authorities.

The new law was passed despite criticism from several groups, including hacker club Chaos Computer Club eV in Berlin, which pointed to the work of "good" hackers, also known as "white hats," who work for security companies.

These computer experts, the club argues, could be restricted in helping software makers develop secure products and businesses deploy them.

■ JOHN BLAU, IDG NEWS SERVICE

Australian Agency Set For Switch to Linux

SYDNEY

THE NEW South Wales Department of State and Regional Development is seeking bids from vendors for a project to replace Novell NetWare-based systems with servers running open-source Linux software.

The department has solicited bids from 23 IT suppliers for its Client Infrastructure Replacement Project, which will be implemented over the next five years.

The project calls for the installation of an enterprise storage-area network system, server hardware to replace "aging" Pentium III-based Compaq ML350 servers, a centrally managed data replication and backup system, and consulting services and training to support the new infrastructure, according to tender documents.

The 20 Compaq servers are used for file and print serving and GroupWise messaging, and all are at "end of life [and] near full capacity," the documents said.

The move comes as Novell continues to urge NetWare users to migrate to its SUSE Linux implementation.

■ RODNEY GEDDA,
COMPUTERWORLD AUSTRALIA

Compiled by Mike Bucken.

Briefly Noted

Martin Read last week announced plans to retire as CEO of LogicaCMG **after 14 years at the helm of the IT services firm. The move came just days after London-based Logica issued a warning that its latest quarterly results won't meet estimates because of declines in its commercial business. Logica said Read "decided to accelerate his retirement plans" in light of "the unsettling speculation following the company's recent trading update."**

■ TASH SHIFRIN,
COMPUTERWORLD U.K.

Nokia Corp. **last week announced plans to open a research center in China that will be jointly operated with Tsinghua University in Beijing. The research center will be the first opened in Asia by Espoo, Finland-based Nokia. The partners will develop wireless technologies, hardware and mobile-based Internet services at the center, which will employ 20 company researchers, 30 professors and up to 50 students from the university.**

■ JEREMY KIRK, IDG NEWS SERVICE

Microsoft Corp. **CEO Steve Ballmer late last month signed an enterprise license agreement with the Australia Department of Defence during a 24-hour stopover in the country. The agreement upgrades the department's support plan and calls for collaborative planning and joint R&D efforts with Microsoft.**

■ SANDRA ROSSI,
COMPUTERWORLD AUSTRALIA

United Microelectronics Corp. **has opened a nanotechnology lab in southern Taiwan to develop chip-production technologies that are 45 nanometers in size and smaller. The $1 billion New Taiwan ($30 million U.S.) lab will eventually employ more than 1,000 research engineers, the Hsinchu, Taiwan, company said.**

■ DAN NYSTEDT, IDG NEWS SERVICE

Sydney-based Cybertrust Inc. **has launched an Asia-Pacific investigative response team to help companies deal with a range of security attacks, breaches and fraudulent activities. The three-person team specializes in identifying the source of a security breach and documenting the event in preparation for potential lawsuits.**

■ SANDRA ROSSI,
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Digital Library Director Says Innovation, Leadership Require More Than a Vision

Executing on ideas can be a big hurdle for project teams, award recipient says

BY DON TENNANT

Laura Campbell, *who works at the Library of Congress as associate librarian for strategic initiatives and director of the National Digital Library Program, is the recipient of the 2007 EMC Information Leadership Award. The award is given annually to an IT user as part of the Computerworld Honors Program, which is also recognizing two other individuals as well as numerous organizations that are using technology to promote social, economic or educational advancements.*

Campbell and the other award recipients will be honored at a gala event in Washington tonight. Last month, Campbell spoke with Computerworld *to record an oral history describing the Library of Congress' efforts to collect and preserve digital content and to digitize other information for online access. Excerpts from the interview follow:*

THE COMPUTERWORLD HONORS PROGRAM

Can you describe the scope of the collection that's being digitized, and the value of that information and the "born digital" materials you're preserving? I'm not certain we really understood the power of what we were undertaking at the time. The digitized material was easier for us to say, "Look what we're doing for education." We're having a big impact: Young people want to be able to use high-quality educational material online.

The born-digital [content], we weren't even certain of the scale at first. In the year 2000, when we were making this pitch about building a digital collection for the nation, we knew a lot of material was being created in digital form. [But] we had no idea how fast that would happen.

This year, 161 exabytes of digital content will be produced. It's estimated that by 2010, 988 exabytes of digital content will be produced. [*Editor's note: 1 exabyte is equal to 1 billion gigabytes.*]

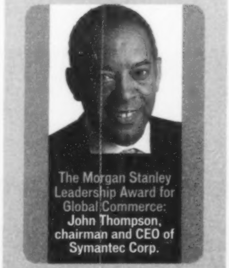
Obviously, you're not going to collect all of that, nor would you want to collect all of it. Some material is important and interesting, and some is just interesting. So part of what libraries and archivists bring to this process is developing an approach for what you select — the collection development part — and curating what is brought in: What's important for Congress to have? What's important for researchers and students to have now, and what's important for your great, great grandchildren to have?

Who makes these judgments? That's a good question, and that's the beauty of the national digital preservation program. The plan that we put forward distributes the responsibility among a set of trusted partners — trusted agents, if you will — to help share in the responsibility and the cost of collecting and preserving content that's both interesting and important to have. It's content that may in some cases be vital, because if we don't get it, no one's going to get it. It won't be there. It will — poof — be gone.

So we have taken the consensus approach. No one said we should have a centralized approach and one institution could do it all. Everyone realized that was absolutely out of the question. We have identified subject experts, people who have specialized skills [and] real knowledge of what's important to save and curate. We're doing this with the help of a lot of smart people. The library has 450 people who recommend what

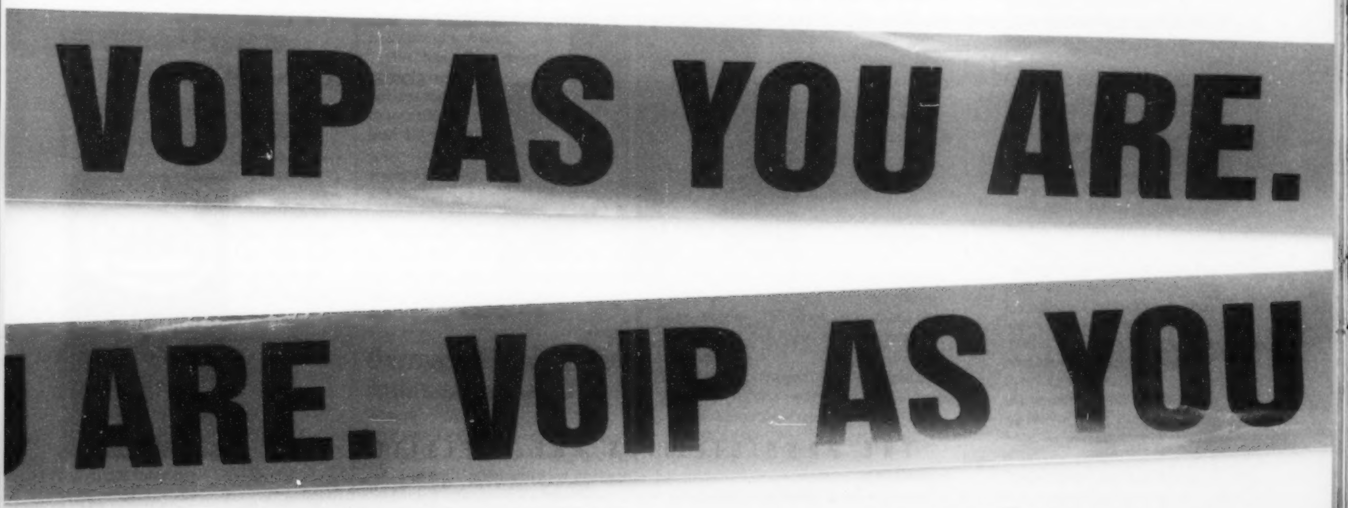
Leading Men

Two other individuals are also being recognized for leadership as part of the 2007 Computerworld Honors Program.



The Morgan Stanley Leadership Award for Global Commerce: **John Thompson, chairman and CEO of Symantec Corp.**

The IBM Global Public Sector Innovation Excellence Leadership Award: **Michael Bloomberg, mayor of New York**



we collect. We just can't do it all by ourselves.

What will the digital library program look like 10 years from now? Ten years from now, we'll have a lot more partners. We will have solved some of the problems around copyrighted, restricted materials. We'll be better at knowing what agreements we should be negotiating. We will be continuing to track and address standards, because technology is not going to stand still. This is a dynamic, moving target. It's not like paper or the physical world, where you could say, "OK, this is the best edition. This is the preservation standard." That's going to change all the time now.

You've written about the importance of anticipating the needs of the 22nd-century user, which is a mind-boggling concept. How do you approach that challenge? When I look around at some of my colleagues, many of us are close to retirement. So I jokingly say that it's really time for us to talk to the next generation. I think that in getting ready for the user of the future, we've got to be thinking about remote delivery. We have to be making certain that the next generation of researchers and leaders and national legislators are involved in helping shape the direction [of our program], because it is going to change fast. Let's face it: Today, if you can't get it online, and you can't get it fast, and it isn't easy, young people aren't going to use it.

How would you define leadership, and do you think it is learned or innate? I think leadership is innate, yet it's also empowered by the environment within which one works. It is the ability to conceptualize a vision or embrace a vision and then take responsibility for it. A good leader starts first by listening, so they gain an understanding from whomever they need to, and then communicating that understanding so the people involved will be clear about the end result. It's a collaborative process where communication doesn't just happen at announcing a vision. There's a great deal of attention [that needs to be] paid to the execution of the strategy.

And I think that's particularly where vision breaks down, or communication breaks down — when you're executing a strategy. Leadership understands that communication throughout all three steps — envisioning and strategy development, as well as execution — is a very important tool, so you are constantly paying attention to realigning the work and adjusting the strategy.

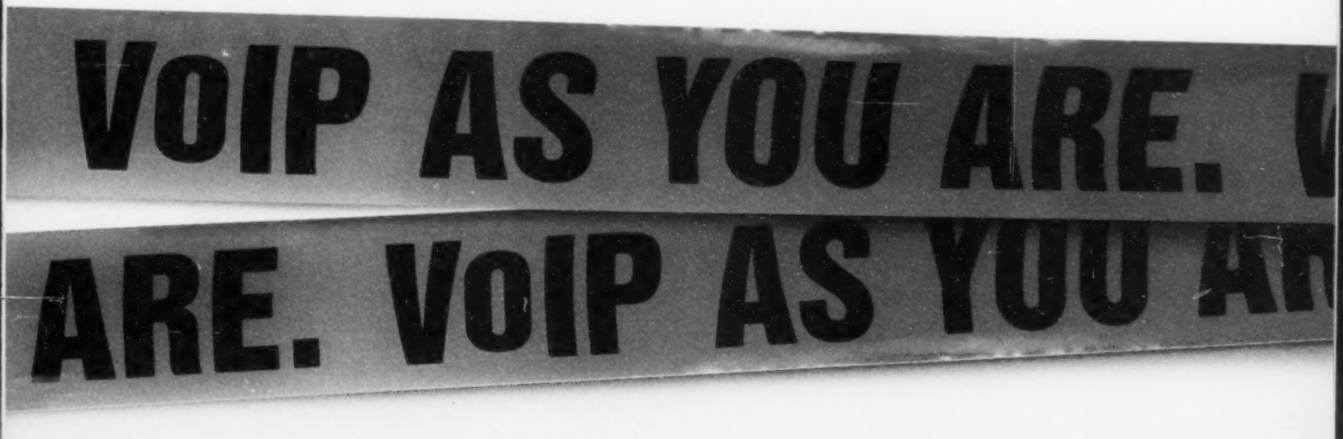
Can you talk a little bit about how that approach and your own management style have worked at the Library of Congress? I would say I've been very fortunate for being able to start in some ways as a start-up in government — to have hired some people who didn't have a certain future [because they were initially working under five-year contracts]. This was a risk, perhaps, for them. They were younger in their careers than I was, but they were challenged by the notion that they could be here at the beginning and make a difference in something that was brand-new. There was no road map. We made it up together.

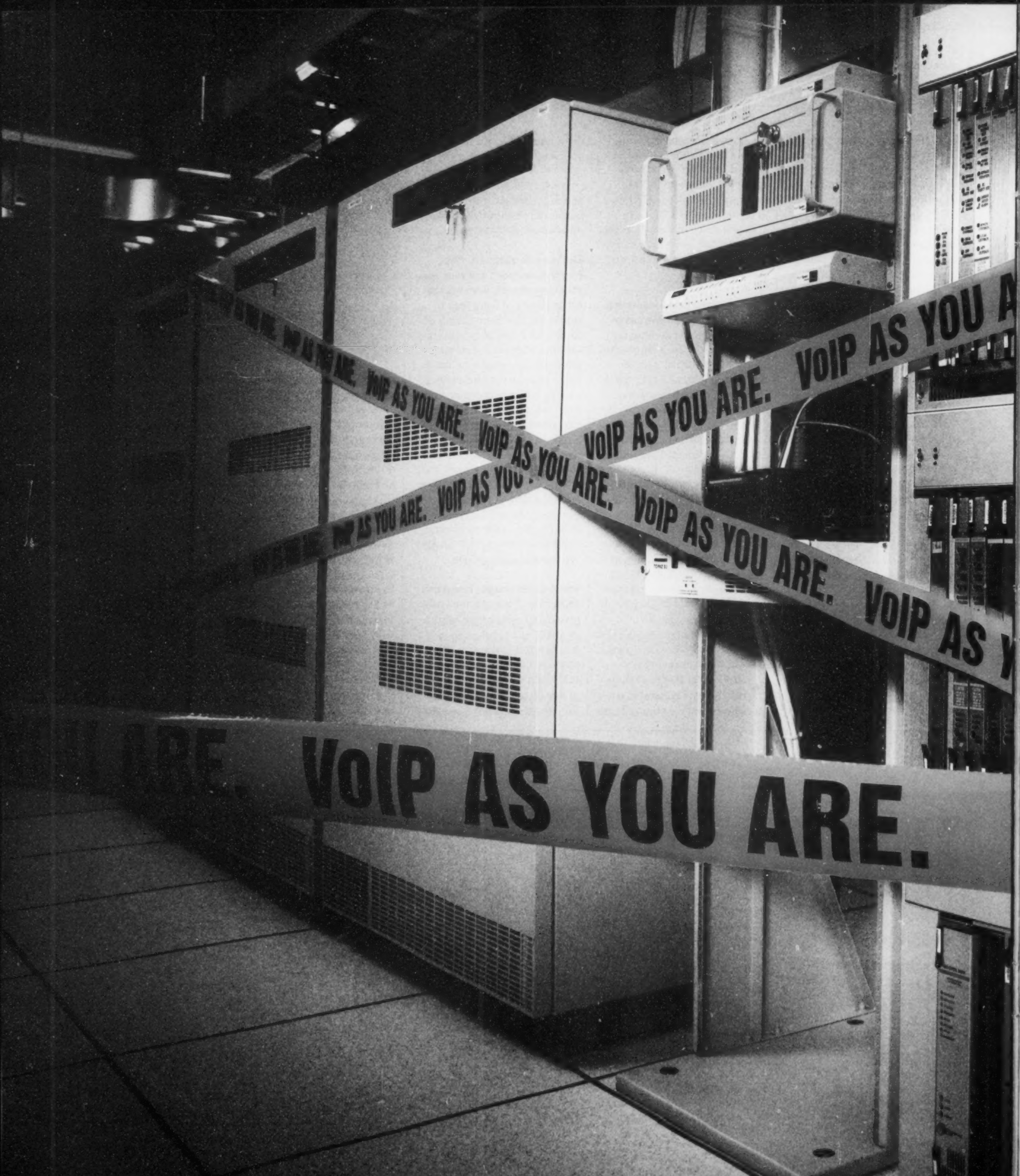
Where would you say innovation comes from? Innovation is the process of creative collaboration. Many a brilliant idea has faltered at the execution stage. Successful innovators really understand the value of a well-conceived strategy for execution. They involve others in the development of that strategy. They look for diversity of ideas. They understand the strength in divergent ideas and values. Innovation is resident in the work that we're doing, I think, because none of us alone had the skills to make this happen, but together we could do so much more.

How do you encourage your staff at the library to be innovative? I had the great fortune to get to know the late Dave Packard. He was a real role model for me, and just a wonderful, wonderful man. He and Bill Hewlett built Hewlett-Packard, and it was one of the most innovative companies for many, many, many years. Why? Because they adopted the style of walk-around management. They listened to their engineers. They encouraged experimentation and testing. They gave people the opportunity to get their new product ideas into prototype. Maybe [those ideas] didn't all come to fruition, but [Packard and Hewlett] fostered an atmosphere of innovation — of creative collaboration. I think they were brilliant leaders and great innovators.

Google, another wonderfully innovative company, has its employees spend at least one day a week on some creative experiment or innovation of their own thinking. Great idea. The atmosphere that you provide for experimentation goes a long way for innovation. ■

> **"It's content that may in some cases be vital, because if we don't get it, no one's going to get it. It won't be there. It will – poof – be gone.**
>
> **LAURA CAMPBELL**, ASSOCIATE LIBRARIAN FOR STRATEGIC INITIATIVES AT THE LIBRARY OF CONGRESS, ON THE DIGITAL INFORMATION THE LIBRARY IS COLLECTING AND PRESERVING

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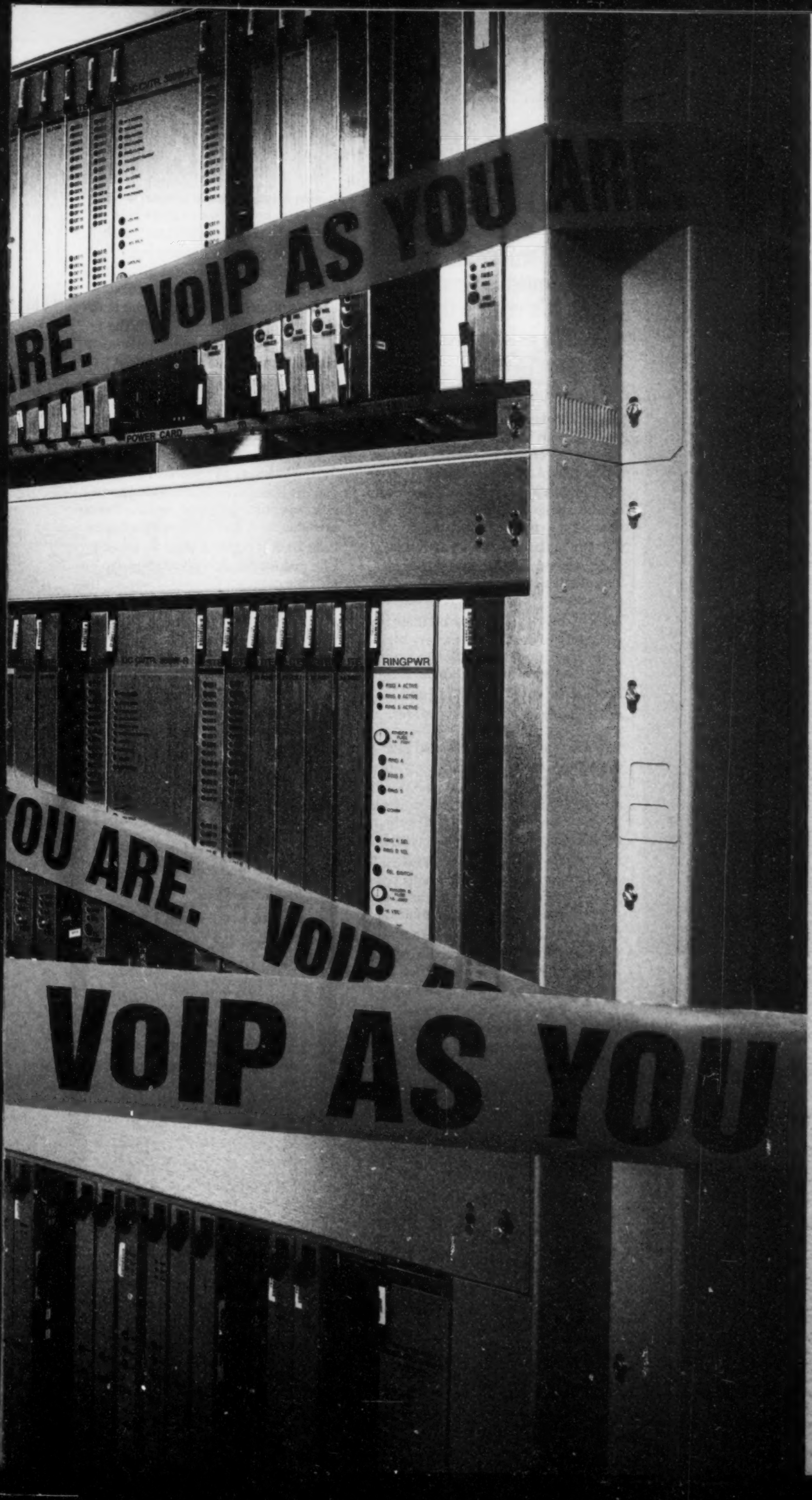

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JOHN RAE

Steve Mills

The **senior vice president and group executive of IBM's software group** talks about the benefits of open-source **software,** Web 2.0 **tools** for business and taking **programming** for granted.

THE GRILL

In the 1990s, IBM made a big push into services but now seems to be placing more emphasis on software. Is that right? Over the past 20 years, we have been increasing our investment in software pretty steadily, so there's nothing new in the sense that we suddenly discovered the idea of being a software business. But the press and Wall Street analysts have paid more attention to the software part of IBM's business in recent years.

"Information on demand" seems to be a big deal at IBM right now. What's that about? There is a lot of data available to [our] customers, in a lot of formats, often in lots of places. They are trying to move the right data closer to the people who need to make decisions with it. Companies want to be as real-time as possible for rapid decision-making as things in the business and the market change. The challenge is, where does the data sit and how complex is it to get to the data? What we have done is create the capability of dealing with every type of data — whether text, image, video, audio — and transform it into the form it needs to be in to be analyzed and "federate" many different data sources.

> **Eighty percent of all digitized information in the world is unstructured. It's where the quantity is and where the growth is.**

How does that compare with what your competitors are doing? A company like Oracle has been fixated on traditional databases. The notion Oracle promotes is, if you just buy more copies of the Oracle database, you'll be fine. But it's impractical to think you'll put all your data in one place. No company has ever done it. Microsoft has a much more narrowly focused strategy around using SQL Server for doing local data marts. They don't deal with all the file information. There is more data sitting in file systems than in relational databases.

Do you see companies increasingly wanting to go after the unstructured data? Eighty percent of all digitized information in the world is unstructured. It's where the quantity is and where the growth is.

Is software as a service a threat to IBM's business? No. It simply determines who my customer is. ADP has been a software-as-a-service company for more than 30 years. This is something that has been with us a very long time, and it grows ever more popular. Is my customer someone who runs their own ledger, or is it ADP who runs ledgers for companies? The answer is yes in both cases. The venture capital community dismisses the traditional business process firms who dominate the market. It's not dominated by Salesforce.com, which is a rounding error.

Is open-source software a threat to IBM? Open source has been a great help to us because it helps accelerate standards. You get significantly improved interoperability and portability. I think where people misunderstand this is that it's often not the money you make from the open-source code; it's the money you make around it. So when I take something like the Apache HTTP Server and incorporate it into WebSphere, because of the popularity of the server, I get a tremendous lift on the WebSphere rate of adoption.

Open source is inevitable. It's good for the industry as a whole. For example, the [free] WebSphere Community Edition conforms to the Apache Geronimo standard, and we download more than 20,000 copies a week — a week! The majority of users don't buy a maintenance contract from us. They are just happy to get a copy and do what they do, and they don't have to tell us what they are doing. Where their workloads are simple and they can get by with effectively free code, we support that.

What's coming out of IBM's research division? If you look at last year's delivery of DB2 Version 9 and all the native

Continued on page 22

Dossier

Name: Steve Mills

Title: Senior vice president and group executive, IBM's software group

Company: IBM

Random Fact: IBM's software business contributes $20 billion of IBM's revenue and 40% of its profits.

Favorite non-IBM technology: Java. "Java really did a lot for system-level interoperability and standards. It really has made a tremendous contribution to the IT industry."

Technology pet peeve: "The problems of interoperability, which are a reflection of the lack of maturity in the IT industry, particularly software."

Historical trivia: Mills joined IBM in 1974 as a sales trainee.

Acquisitions: Since taking his current job in 2000, he has helped IBM acquire 44 companies.

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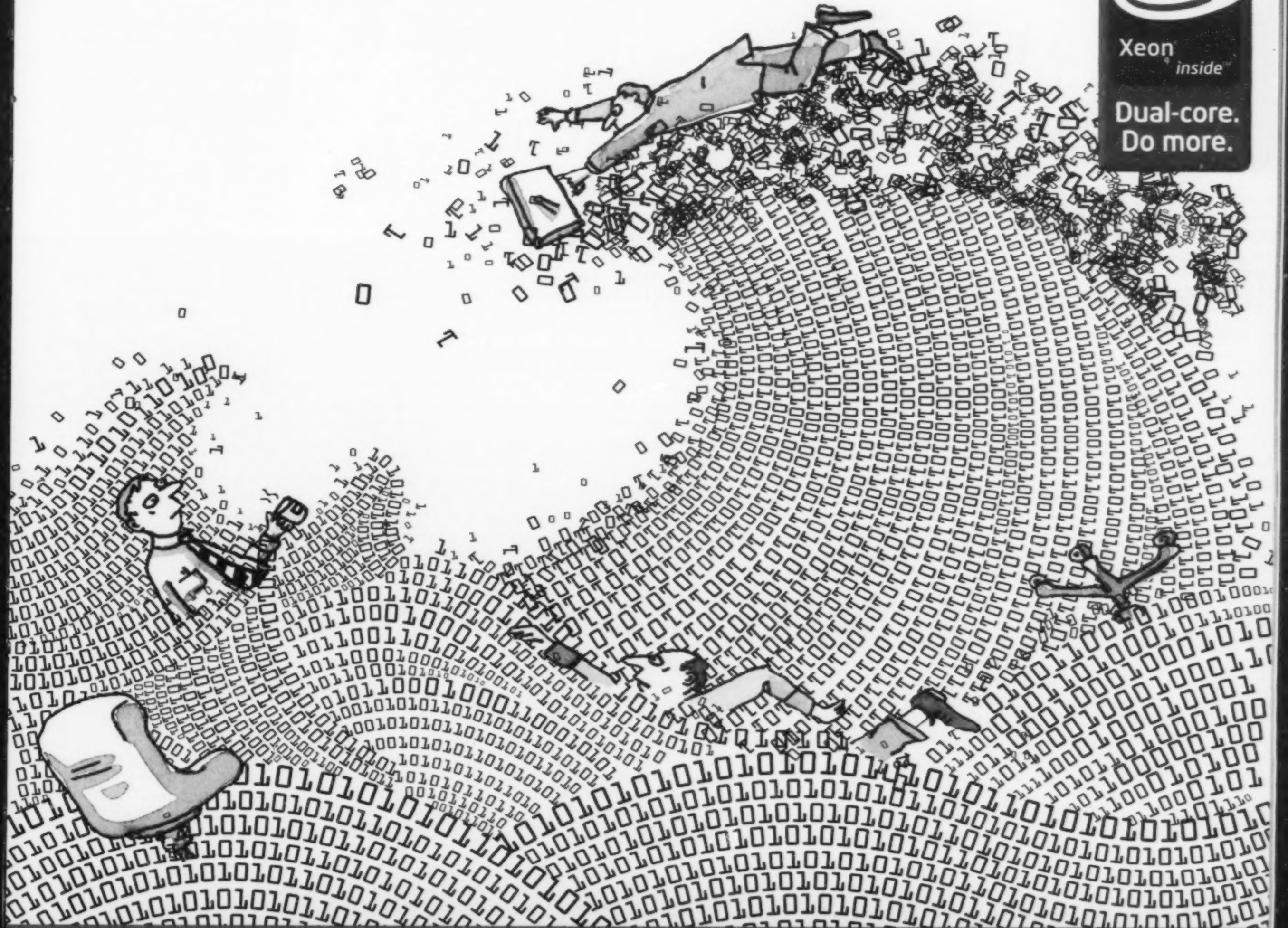

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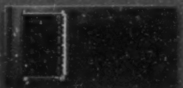

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New Hampshire Legislators Say No to Real ID Program

Governor set to sign bill that rejects state's compliance with federal law

BY MARC L. SONGINI

NEW HAMPSHIRE is poised to become the latest of a handful of states to enact a law banning implementation of the federal national identification act.

The Real ID bill, whose evolving guidelines were last updated in March by the U.S. Department of Homeland Security (DHS), was passed by Congress in 2005 with a May 2008 deadline for compliance. The deadline can be extended on a case-by-case basis until December 2009 with DHS approval.

About a dozen states, including Maine, Hawaii and Idaho, have so far passed legislation opposing the federal law, said a spokesman for the American Civil Liberties Union in Washington.

"The concerns are all similar," he said. "They are based on privacy, cost and convenience."

As it stands, the Real ID law would require that all state driver's licenses and other identification cards include a digital photograph and a bar code that can be scanned by electronic readers.

Cards that comply with the law would be required for people entering federal buildings and nuclear power plants and boarding commercial airplanes, according to the DHS.

The New Hampshire bill, which labeled the Real ID Act as "contrary and repugnant" to the New Hampshire and U.S. Constitutions, was passed in the state Senate by a 24-0 vote in late May. The New Hampshire House of Representatives had passed the law by a 268-8 vote in April.

New Hampshire Gov. John Lynch plans to sign the bill, though no timetable has been set, said his spokesman.

In a statement last month, Lynch applauded the vote by legislators. "I continue to have many concerns about Real ID, including the cost, the impact on the privacy of our citizens and the burden it will place on state government employees," Lynch said.

During debate on the bill, legislators in both the New Hampshire House and Senate raised several objections to the Real ID law, including the cost of its implementation and its potential to violate the privacy rights of individuals.

"The state Senate doesn't believe the Real ID program was properly thought out by the feds," said Sen. Peter Burling (D-Corning), a sponsor of the bill.

State Forfeits $3M

Lynch's spokesman noted that with passage of the bill, New Hampshire will forfeit a $3 million federal grant to implement Real ID.

"That $3 million bribe was tempting," noted Burling. However, he projected that the cost of implementing the law would be far more than $3 million and perhaps as much as $10 million.

He noted that the state would be responsible for purchasing technology to meet the requirements of the law and for storing copies of any additional documents that cardholders must provide under Real ID.

And despite assurances from the DHS that the data would not be stored in a central national database, Burling said state officials also fear that there would be widespread access to personal data of state residents. Such a central database, he added, could prove to be a bonanza for hackers.

"If you want to do us harm, what's more fun [to hackers] than a central database?" asked Burling. "If you electronically link all this information, you're just asking [cybercriminals] around the world to take a crack at it."

The DHS, however, contends that employees from the motor vehicle departments in other states wouldn't have access to the data. Nor does the current proposal boost federal access to state motor vehicle data, the DHS said.

State Rep. Neal Kurk (R-Weare), a strong advocate of New Hampshire's bill, added that he fears that the federal law will ultimately require identification cards to include radio frequency identification or similar technology that can be used to store personal data and track the locations of citizens.

Meanwhile, the legislators acknowledged that residents of states that ban implementation of Real ID could be prevented from entering restricted sites such as federal offices or flying on commercial airlines.

However, Kurk said that as more states join the effort to block Real ID, it is increasingly likely that the DHS will change the law to assuage the critics.

"If New York and California refuse to comply, Real ID will collapse of its own weight," he said. ▸

AT A GLANCE

Real ID Act

- It was passed by Congress in 2004 as a means to apprehend potential terrorists.
- The Department of Homeland Security must stipulate technology requirements for state driver's licenses and identification cards.
- Real ID cards would be required for boarding commercial aircraft and for entry into federal buildings and nuclear power plants.
- The issuing agency is required to store copies of personal documents.
- The evolving criteria are still being drafted by the DHS.

Continued from page 20

XML capability built into it, that's very significant. And there is very deep algorithmic optimization for data compression in DB2 — many times superior to anything in the market. IBM is the only commercial company in the world maintaining a large math department.

In social networking, we have a lot of activity around Web 2.0. There was a recent announcement [about] the Lotus Connections technologies that provide social networking tools for business. [See "Web 2.0 Goes Corporate," page 24.] And we have a lot of activities around RFID, event-based processing and real-time systems. It's about how you optimize fleet management, shipping and the movement of goods.

Bernard Chazelle, a computer science professor at Princeton University, recently told *Computerworld*: "Perhaps the biggest disappointment in computer science has been the slow development of software engineering. The pain of producing code has not been eased." Do you agree? There are countless millions, maybe billions, of what I call situational applications — all kinds of lightweight things that people have cobbled together using component pieces. We have supported this through, for example, the Notes platform.

The Web itself supports this model. Look at what people are doing with Web 2.0, mashups, AJAX, Ruby, PHP, scripted approaches to assembling applications. We take this for granted for how easy it's become.

Perhaps at Princeton they don't view Web page designers as programmers, but they are doing the work that programmers used to do.

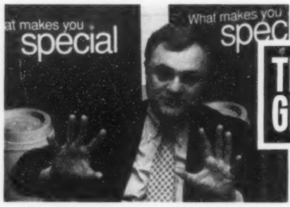
But what has IBM done for the traditional programmer? We have tools available today that help the professional programmer generate and design a lot of the code that previously they would have hand-built.

We have those tools in the Rational portfolio, and we have thousands of customers that would attest to the fact that we have brought engineering to the challenge of coding.

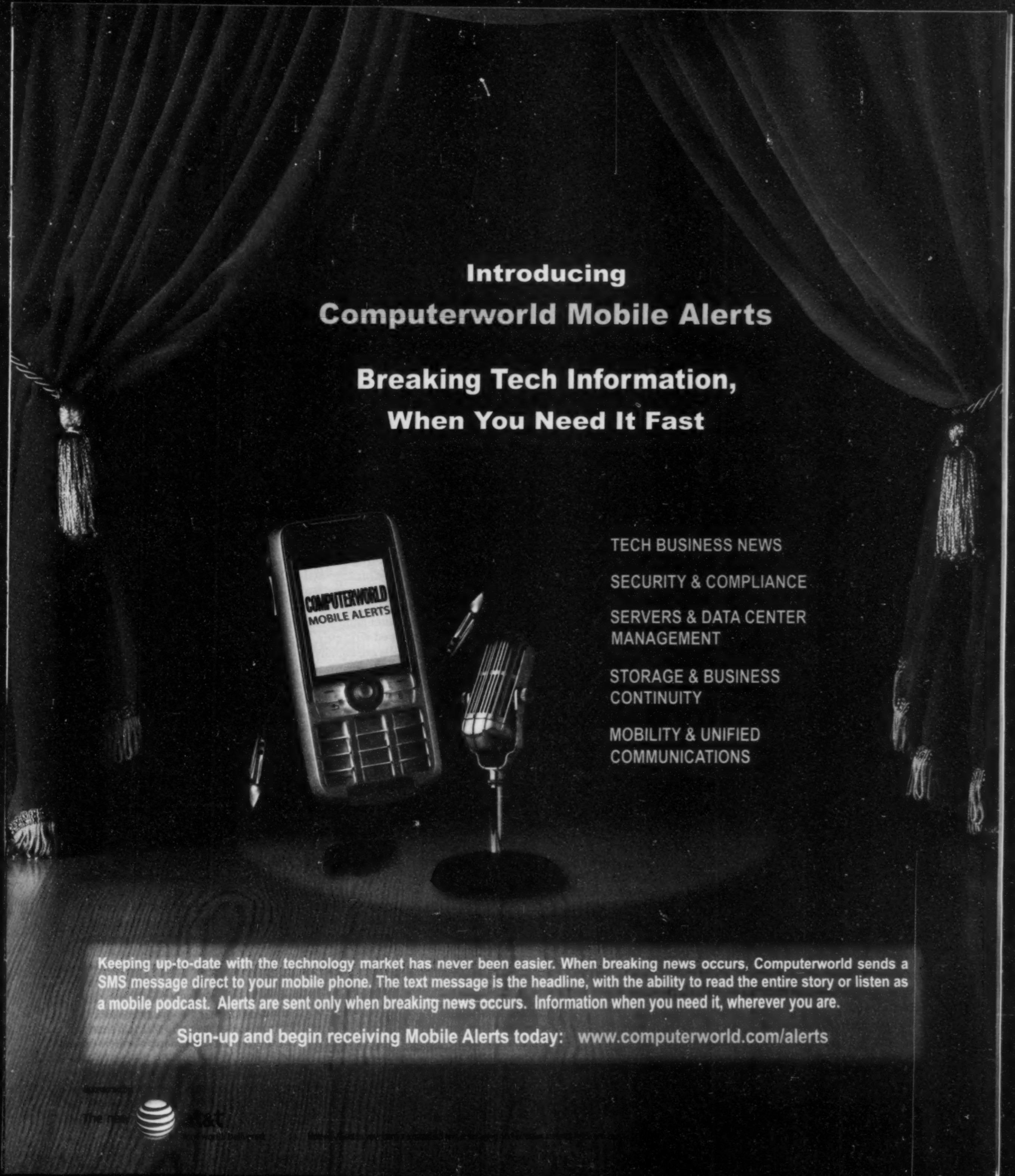
I've been in this business for 33 years. I wrote assembler programs when I joined IBM, and the tools today are profoundly more sophisticated and automated in the generation of code.

– INTERVIEW BY GARY ANTHES

THE GRILL



> **It's often not the money you make from the open-source code; it's the money you make around it.**
>
> STEVE MILLS, SENIOR VP AND GROUP EXECUTIVE, IBM SOFTWARE GROUP



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DON TENNANT

A New Talent Pool?

I HATE computer games. What's more, it's a hate born of ignorance, because I know almost nothing about computer games. The last one I played was Pong, and my interest in that waned rapidly because it demanded far too much hand-eye coordination.

DON TENNANT is editor in chief of *Computerworld*. Contact him at **don_tennant@computerworld.com**.

My ignorance of the subject doesn't end there, however. I also find myself stereotyping gamers as nerdy, adolescent recluses whose detachment from reality is demonstrated by a circle of friends they've never actually met, but who they envision as being clad entirely in armor. Except for their wings and horns, of course.

My son Dan, a junior at Worcester Polytechnic Institute in Massachusetts, is such an avid gamer that one of his two majors is interactive media and game development. I'm not saying that Dan fits the stereotype, but he has Nerf weapons hanging on the walls in his room. I'm not making that up. He's also been seen running around the WPI campus with a long stick called a LARPing (live-action role-playing) staff. Fortunately, WPI is an institution where that sort of thing is accepted, so he doesn't have to worry about frat-guy onlookers throwing empty beer bottles at him and his fellow LARPers.

Interestingly enough, Dan's academic pursuits have given me a glimpse of what lies beyond the stereotype. The kid is, as they say in Worcester, wicked smart. I've seen some of the design work he's done in Maya, Autodesk's 3-D rendering program, and it's pretty amazing. I'm not referring solely to designs of goofy cyborgs with built-in weapons of mass destruction, either. I'm talking about practical designs that would have real-world applications in construction or any number of other industries.

Venturing beyond the stereotype has yielded another eye-opener for me. If I were the wagering type, I would have bet more than I can afford to lose that the percentage of gamers who are boys 17 and younger is far higher than the percentage who are women 18 and older. Yet according to the Entertainment Software Association, the former group constitutes 23% of gamers, and the latter group 30%. Who knew?

That's just one of the enlightening bits of information I gleaned from reading our feature on women in the computer gaming industry, "She Got Game" (page 32). If you haven't read it yet, you could be forgiven for wondering what in the world an article about women who design computer games is doing in *Computerworld*, "The Voice of IT Management." But just read it.

One of the things you'll learn is that computer gaming is attracting women into the technology arena at an accelerating pace. According to the nonprofit Women in Games International, a typical WIGI event attracts 250 to 300 women, whereas even a major event would have brought in fewer than 100 women 10 years ago. As the IT profession continues to lament the declining percentage of women in its ranks, consider the skills that women in gaming bring to the fore, like project management, collaboration in a development environment, and experience with networking technologies and high-end computing systems. That has to be an attractive pool of talent for IT recruiters.

Game developers, moreover, often have top-notch writing abilities (Dan's second major is professional writing), a valuable tool in creating the story lines underlying the more sophisticated computer games. No doubt, well-developed written-communication skills are equally highly prized in any IT organization.

So if you're hung up on the stereotype, get over it. A woman with a styrofoam cudgel may be one of the best hires you ever made. ▸

Don Tennant

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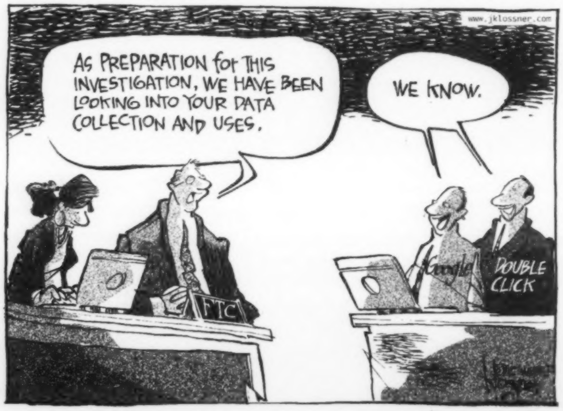
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CHRISTOPHER MINES

IT's Thinking But Not Yet Acting Green

INFORMATION technology is going green.

At least IT systems vendors are, with announcements of new energy-efficient servers, data center power and cooling products, and device recycling initiatives coming thick and fast these days.

But what about IT buyers? Are they listening? And do they care? After all, it's users' procurement processes and operational and asset management practices that will ultimately determine whether green IT is for real or just another passing fad. To find answers to those questions, Forrester Research surveyed 125 operations and procurement professionals in enterprise IT shops in North America and Europe.

Analyst **CHRISTOPHER MINES** is a senior vice president at Forrester Research Inc.

What did we learn? The survey results show fairly broad awareness of green IT, an interest in energy-efficient IT systems and a strong desire to hear more from vendors on these topics. What our survey did *not* find was broad-based activity by user firms to translate their green awareness and concerns into tangible action in IT procurement or operations.

Fully 85% of respondents told us that environmental concerns are "somewhat important" or "very important" in planning IT operations. As with the vendors, this awareness is driven by regulatory requirements and corporate responsibility, but even more important are growing concerns about power availability and costs. A number of companies considering changing their purchasing or operations practices will be driven solely by a desire for greater efficiencies and the resulting cost reduction. Green benefits like reductions in corporate CO_2 emissions may result, but these are seen as byproducts of hardheaded, ROI-driven business practices.

A few companies told us that their green IT efforts were driven from the top of the company. Acting more environmentally responsible is a high priority, especially for European companies, U.S. energy or recreation businesses, and government agencies. For them, green IT is part of a strategy to improve how they're perceived by customers, investors, regulators and employees.

But awareness has not yet been translated into action. Just a quarter of the surveyed companies have written recycling, energy efficiency or clean manufacturing criteria into their IT procurement processes. When we asked their procurement and operations people what vendors could do to increase their green purchasing, the resounding response was that they'd like vendors to give them more information. Only 15% of the companies we surveyed said they had a "high level of awareness" of IT vendors' green initiatives, and most told us that they were hearing little or nothing from top-tier vendors on this topic.

When I read that, I get an image of someone waving a red cape in front of a herd of snorting bulls. Get ready for the IT vendors to charge. The best of their efforts to educate customers will have these characteristics:

- **A CFO perspective.** Green development and marketing by IT vendors to date has been a geekfest. The smart ones will stress business benefits of green policies — not just cost reduction, but *risk* reduction, brand enhancement and growth opportunities — that appeal to the CFO and other executives.
- **A "hard green" emphasis.** User organizations are clear about this: Green is nice, but it's the long view that matters. Vendors will break through the messaging clutter with tangible ROI, complete with calculators and cost studies to mitigate customers' doubts.
- **A holistic approach.** The most effective vendors will take a wide-angle view of green IT rather than getting mesmerized by one aspect like energy efficiency or product recycling. Weaving together the disparate elements of a green IT strategy, and practicing what they preach in their internal IT operations, will bring credibility and punch to vendors' marketing efforts.
- **A well-tuned set of messages.** The best messages will resonate with various customer motivations for going green. Customers' receptivity will differ by industry, geography and individual roles.

Green IT is no bubble. But only slowly will companies' awareness and interest translate into concrete actions to lessen the environmental impact of their IT operations. Vendors can speed up that translation by recognizing that for most companies, it's business first and green second. ▸

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Excerpts from readers' comments on stories at Computerworld.com

RESPONSES TO:

Offshoring Isn't Just About the Money, Survey Suggests

MAY 14, 2007

Of Course It's About Money

American executives are now incapable of original thought. Their whole perspective is one of cost-cutting. Not business growth, not new products, not new customers, just how do we cut costs and thereby get me a bigger bonus? Cutting costs is easy compared to actually building a business, so take the easy option, find a source of cheap labor. Whether that's an illegal immigrant or an Indian worker. We who have the real experience of offshoring know there is no increase in performance and it in fact is much harder to get a problem resolved.

But if you are going to take a survey of those that proposed and implemented an offshoring option, what results do you expect? Would you expect the CIO who took a company off its mainframe & onto a Windows platform to say, "Oh that was a big mistake, I shouldn't have done that." Ridiculous to even ask the question of that person.

SUBMITTED BY: *Peter*

I noticed that for the SAP ERP implementation cited in the article, only 10% of the work was sent to India. It would be a lot more useful to report observed results where a substantial amount of work was offshored. In my experience there are unacceptable time lags and quality issues with offshored work teams and with outsourced projects. My latest and most painful example was an SAP system that was down for three days because the offshore team seriously underperformed in complex problem analysis. They were great performers on routine operational matters like backup and recovery (things which can be documented ad nauseam). In another project, we are experiencing four-day turnarounds on defect corrections with an offshore development team, a time lag that seriously cripples testing progress. Note that the test teams are uncovering quality issues caused by these same offshore developers.

SUBMITTED BY: *Anonymous SAP consultant*

Boy, are you guys cynical. When I outsourced to India, money was the last thing on my mind. It's about synergistic operational efficiencies in our management-productivity continuum, and outsourcing can't be beat for that. BTW, I also subscribe to *Playboy* because I love the insightful articles. Yeah, right . . .

SUBMITTED BY: *Anonymous*

RESPONSES TO:

Security Isn't Just Avoiding Microsoft

MAY 7, 2007

It's Not Just About Popularity

If someone (say, Apple) were the dominant vendor, there would probably be more Apple viruses, but there would still not be as many as there are for Microsoft. Microsoft's security problems are not JUST because they are the dominant vendor. I don't think so, and Gene Spafford doesn't either. He wrote: "There have been something like 100,000 viruses for MS operating systems, only about 50 for the Mac, and about 3 for commercial Unix systems. That difference isn't because of a difference in the prevalence of the machines – there are basic architectural differences."

SUBMITTED BY: *Anonymous*

Architectural Differences?

OK, in general a Linux system is more secure than a Windows one. But while users continue being soooo stupid, "architectural differences" aren't relevant at all. Once users stop saying "yes" to a message that says "I'm going to install a virus, do you want to continue?" then you can start to talk about architectural differences. But until then *every* system will be insecure.

SUBMITTED BY: *Anonymous*

The difference is that in Linux, if a user does something like that it affects his user space, and that's it. It doesn't affect the whole machine like it would on a Windows box. If a user gets a bug in his profile you can just remove that user, re-add, and go on your merry way.

SUBMITTED BY: *amcquay*

If the user has the root password and is stupid enough to do something like that, no OS in the world will save him. However, many viruses will not ask "Do you wish to install the virus?" but rather something like, "Do you wish the program installed to save scores locally?"

Many people who use Linux are no smarter than Windows users. The difference is Linux emphasizes that root should almost never be used, while in Windows, use of administrator power is more relaxed.

SUBMITTED BY: *Anonymous*

RESPONSES TO:

Is Speech Recognition Finally Good Enough?

MAY 18, 2007

Speech and Learning

Speech and learning are processes that, in humans and other animals, have a strong emotional component. Listening, understanding and responding also involve emotion. Eliza never felt anything. That's one reason our machines have so much trouble really learning or discovering.

SUBMITTED BY: *Icabod*

Problem Isn't Accuracy

Speech recognition will not catch on in the workplace for one reason: privacy. Do you want your cubemates listening in on your dictation?

SUBMITTED BY: *Alphaman*

STRATEGIES & TACTICS

Inside 6.4.07

She Got Game. Women are bringing a fresh outlook to the world of computer gaming. **PAGE 32**

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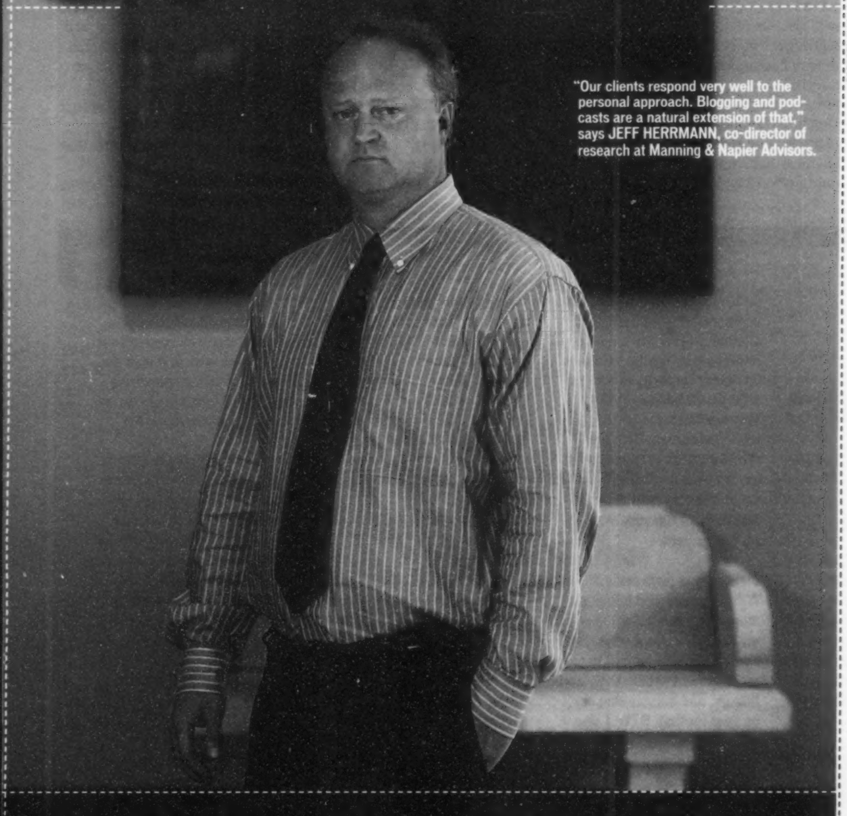

"Our clients respond very well to the personal approach. Blogging and podcasts are a natural extension of that," says JEFF HERRMANN, co-director of research at Manning & Napier Advisors.

PRESTON MACK

Web 2.0 Corporate

By Sue Hildreth

Tools like wikis and podcasts can provide significant advantages to a business. But CIOs have been slow to embrace these lightweight Web technologies.

FOR JEFF HERRMANN, co-director of research at investment company Manning & Napier Advisors Inc., the impetus to invest in Web 2.0 came abruptly late last summer. That's when one of Herrmann's analysts left the company — and much of his recent research vanished as well.

It wasn't stolen — just lost somewhere on the former employee's hard drive, Herrmann says.

"After he left, his replacement showed me a stock he thought was interesting. I said, 'Wait a minute; we already researched that stock.' " The analyst who had left had researched the stock thoroughly and devel-

Continued on page 28

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2.0 Tools & Terms

What are Web 2.0 applications, exactly? Here are the main types:

BLOG. Short for "Web log," a blog is a Web journal that lets users post comments or news. Often, they also let readers post feedback.

PODCAST. An audio or video file distributed over the Internet through RSS or another syndication feed.

RSS. Really Simple Syndication is a technology that lets users subscribe to feeds that deliver wiki or blog updates or even more general information such as traffic alerts.

WIKI. A collective Web page that allows users to post or link content without having to use HTML.

– SUE HILDRETH

Continued from page 26

oped a strategy about when to buy it. "But do you think we could find that work? No way," Herrmann says. "It was nowhere to be found."

Herrmann realized that a wiki — a collaborative Web site to which everyone can contribute content — might have prevented the loss.

Now, Manning & Napier analysts use wikis from Socialtext Inc. to share and store research, commentary and meeting notes. The wiki is organized by industry, such as health care, and then by theme, such as the plight of the uninsured. Content can be typed, pasted or linked into the wiki. Some e-mails or e-mail threads can also be sent directly to the wiki. And all of that unstructured content can be searched by keyword, as well as tagged for subject categories.

"We like it because it's a peer review system, not a hierarchical system. We work in teams, each covering a sector, so this makes it easier to collaborate," says Herrmann. "We also wanted to do a better job of documenting and saving things that don't get saved, as part of our legal obligations."

Herrmann is among the growing wave of executives to recognize the business value of Web 2.0 tools. Innovations such as wikis, blogs, RSS feeds, podcasts and social software are ubiquitous in the consumer market, and many people have quietly downloaded Web 2.0 tools at work to use on their projects.

In a survey conducted earlier this year by consulting firm McKinsey & Co., nearly three-fourths of the 2,847 executives polled said they planned to maintain or increase their spending on Web 2.0 collaborative technologies, for use either externally to communicate with customers and partners, or internally to improve collaboration among employees. But until recently, CIOs and other top executives have been slower to recognize their value.

"Companies look at this and say, 'I understand the technology; I just have no idea how I can make this part of my corporate activities,' " says Ron Schmelzer, an analyst at ZapThink LLC in Waltham, Mass.

CIOs also have concerns about security, governance, IT support and integration of Web 2.0 applications with existing systems. And the very nature of Web 2.0 — distributed and egalitarian — makes some managers nervous. "Web 2.0 is decentralized," explains Schmelzer. "There's no centralized authority to mandate or control."

Major vendors of Web 2.0 tools for corporate use are addressing these concerns, however. They are adding management and security features, and some are assembling these tools into suites that can be implemented and administered as a platform.

Meanwhile, more businesses are experimenting with Web 2.0 tools for a wide range of activities, from content management to employee recruitment.

The Case for Web 2.0

INFORMATION MANAGEMENT. Honolulu-based Hawaiian Airlines Inc. recently grappled with the problem of how to organize and pare down a glut of content built up over time by customer service staff in airports, at the airline's call center and on its Web site.

"We had a ton of duplicate data. We have people at the airport answering the same questions as the phone reservation people and the Web site," explains CIO David Osborne. Each group was creating its own content.

The airline wanted to consolidate all that content into one repository that could be easily referenced, searched and updated by the service staff. The solution: a single customer service FAQ on a wiki, using the Web 2.0 features in Microsoft Corp.'s SharePoint Server 2007. "Now we can have all of that data in one place," says Osborne.

Wikis aren't the only Web 2.0 tools used for information management. The Discovery Channel's Educator Network, an online community of teachers, uses a Web-based collaborative database — Dabble DB from Smallthought Systems Inc. — to manage its list of 11,000 education-related events.

Instead of Discovery Channel staffers collecting information and posting it to the Web site, the Educator Network's 2,500 "Star Educator" volunteer teachers remotely update the information pertaining to their own regional and online events.

This approach has saved the Discovery Channel approximately 75 staff hours per week, says Steve Dembo, online community manager for the network, adding, "By having it in Dabble, we're able to pull out all kinds of reports that we weren't able to before."

NETWORKING. The use of LinkedIn Corp.'s networking service saved Jeff Hoffman from making a major hiring blunder last December.

Hoffman, CEO of Basho Strategies Inc., a sales training firm in Burlington, Mass., was interviewing applicants for a midlevel business development position. As part of the process of collecting references, Hoffmann sent queries to people listed in the LinkedIn networks of the most promising candidates.

The feedback he got on one job seeker was particularly revealing. "Two people responded that she was abrasive, didn't work well with salespeople and had not had much success in her jobs. But what was really interesting was that one of them was from a company not listed on her résumé," says Hoffman. "The feedback was enormously important, because any new hire exposes us to a big risk. It's arguably the most expensive mistake you can make."

Social networking software can be used externally to enable a company's customers to connect with one another, as well as internally to enable employees in large companies to link up. For example, Hawaiian Airlines plans to use SharePoint Server's blog, people search and MySite features to create a Web-based community for employees, and it is considering something similar for its customers, who are mostly vacation travelers. The MySite feature provides a place for employees to list their skills and experience, colleagues, association memberships, latest projects and other information, and it permits others to search the profiles by keyword.

"Internally, we're looking at department sites where groups could add news, photos, commentary, planned activities and improvements to working practices," says Osborne. "It's basically a set of community sites with interactive content."

> **"[The wiki is] a living document that progresses as the development progresses. It's very flexible and easy to use."**
>
> **JAMES SULLIVAN,** CONFIGURATION MANAGER, RT LOGIC

PROJECT MANAGEMENT AND COLLABORATION. Web 2.0 technologies are also being leveraged as project management aids, either alone or as part of larger project management applications.

RT Logic, a maker of satellite systems in Colorado Springs, relies on the wiki function in CodeBeamer, a configuration management tool from Intland Software, to document the progress of products in development. The company currently has 117 wikis that engineers use as their communication channels for projects.

James Sullivan, configuration manager at RT Logic, says lightweight wikis are ideal for project collaboration because of the ease with which engineers can add comments. It's also possible to revert to prior versions of a wiki if a mistake is made.

"It's a living document that progresses as the development progresses. It's very flexible and easy to use," says Sullivan. "Since we can back up and see what the history was, it gives us a snapshot of where we've been and where we are now."

CONTENT PUBLISHING. The Discovery Channel's Educator Network offers Web 2.0 technologies to help teachers share ideas. Among them are Six Apart Ltd.'s TypePad service for blogging, StikiPad Inc.'s StikiPad for wikis, iLike Inc.'s GCast for podcasts, Simulat Inc.'s Vyew live conferencing tool and Yahoo Inc.'s Flickr photo-sharing application.

Some teachers who recently went to South Africa and New Zealand as part of the Discovery Educator Abroad project used Flickr to post their photos, for example. "They're tools to communicate with other teachers," says Dembo, noting that Web 2.0 technologies are easy to use. "With these kinds of tools, anyone can jump in."

Basho Strategies draws clients and potential clients

Continued on page 30

Innovations by InterSystems

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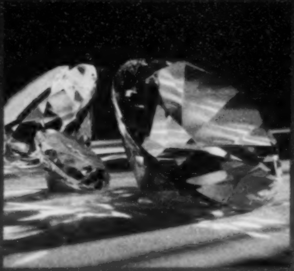

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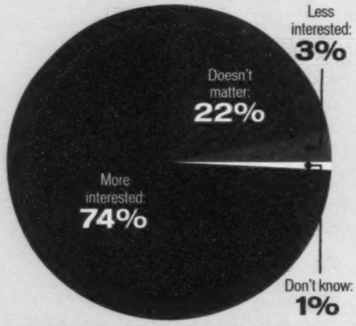
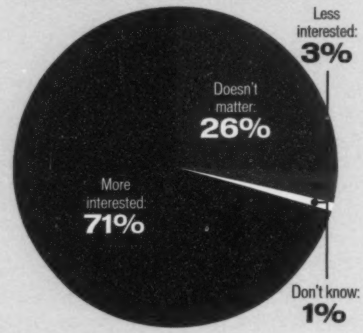
CIOs Vote For Web 2.0 Suites

Would you be more interested in Web 2.0 technologies if offered as a suite?



Would you be more interested in Web 2.0 technologies if offered by a major incumbent vendor?



Base: 119 U.S. CIOs. Percentages may not total 100 because of rounding.

SOURCE: FORRESTER RESEARCH INC., MARCH 2007

Continued from page 28

to its Web site with a blog where visitors can read sales-related commentary from Basho executives and post feedback. In addition, Basho clients can subscribe to an RSS feed of podcasts on sales tactics.

"Our clients respond very well to the personal approach. Blogging and podcasts are a natural extension of that," says Hoffmann.

Inherent Limitations

Despite the benefits of Web 2.0 tools, smart corporate users realize that they can't effectively replace face-to-face and phone contact between people. For example, at RT Logic, engineers make use of wikis for internal collaboration, but the company has so far eschewed implementing Web 2.0 for customer communication. Currently, if a corporate client wants to find out how a product is progressing, he has to call a lead engineer at RT Logic to discuss it.

Sullivan says that the company has considered implementing a blog for customers. One possibility was to have engineers post updates on the status of projects and allow customers to log into their own project blogs and get updates anytime they wanted, rather than playing phone tag with the engineers.

Another idea was to allow customers to go online and file their own change requests for product features, or post requests and questions to a wiki, where RT Logic engineers would answer them.

While both ideas seem tempting, RT Logic managers have so far decided against them, reasoning that Web 2.0 tools might actually impede good communication with customers.

"It puts a layer of separation between our engineers and our customers," Sullivan explains. "We like the feedback we get when we have direct communication with our customers. We're able to ask more direct questions and get to the root of the problem."

> **"It's much easier to manage one piece of technology that is integrated and runs on one box.**
>
> **DAVID OSBORNE,** CIO, HAWAIIAN AIRLINES

Security Concerns

There are also lingering concerns about Web 2.0 in the corporate setting. Hawaiian Airlines' Osborne worries that uncontrolled use of wikis and blogs could lead to unsuitable content being distributed. "We're not going to let people just have a free go at everything. There's liability around that," he says.

So the airline will implement an approval process for creating wikis, as well as employ the security features in SharePoint to control who can post content.

Experts note that it isn't that difficult to set up a controlled Web 2.0 environment. "Some feel that it will expose more problems to a wider audience, but a wiki can be managed and monitored in a central place," says Jim Murphy, an analyst at AMR Research Inc. in Boston.

In fact, most of the products aimed at businesses have features for setting up role-based access rights for various users. But the flip side is that too much security can negate the benefits of Web 2.0. "If you're trying to create an open, collaborative community and you lock it down, you won't have one," says Murphy.

Another issue is that many Web 2.0 applications are hosted services. The idea of having a blog, wiki or even a podcast with private company content on someone else's server can make executives nervous.

Hosted service providers offer security measures, of course, such as SSL encryption, passwords, firewalls, backups and archiving, but if those aren't sufficient, it's often possible to buy the software and bring it in-house. That's what Manning & Napier did after upper management expressed concerns about security.

"We were getting [Socialtext] through the Internet gateway, but the powers that be said it had to be behind the firewall," says Herrmann.

Here Come the Big Boys

Until recently, the Web 2.0 market was dominated by smaller vendors. But the major players have begun adding Web 2.0 capabilities to their existing products. Microsoft's SharePoint Server 2007 has templates for wikis and blogs. Last November, Intel Corp. introduced the SuiteTwo Web 2.0 package, which combines technologies such as Six Apart's Movable Type for blogging, Socialtext wikis, NewsGator for RSS feed reading and SimpleFeed for RSS feed publishing, all integrated by SpikeSource Inc. IBM, Oracle Corp. and Google Inc. are all adding various Web 2.0 features. (See "The Grill: Steve Mills," page 20.)

As Web 2.0 becomes part of leading business applications, more organizations are likely to adopt them. According to a recent survey by Forrester Research Inc., large organizations prefer to purchase Web 2.0 products from incumbent vendors. Of the 119 CIOs surveyed, 71% said they would like to buy them from a major vendor, and 74% said they would prefer to get Web 2.0 technologies as a suite.

In other words, businesses don't want a collection of Web 2.0 tools; they want an "Enterprise 2.0" platform. One key reason for this is a desire to have complete interoperability and integration with existing business systems.

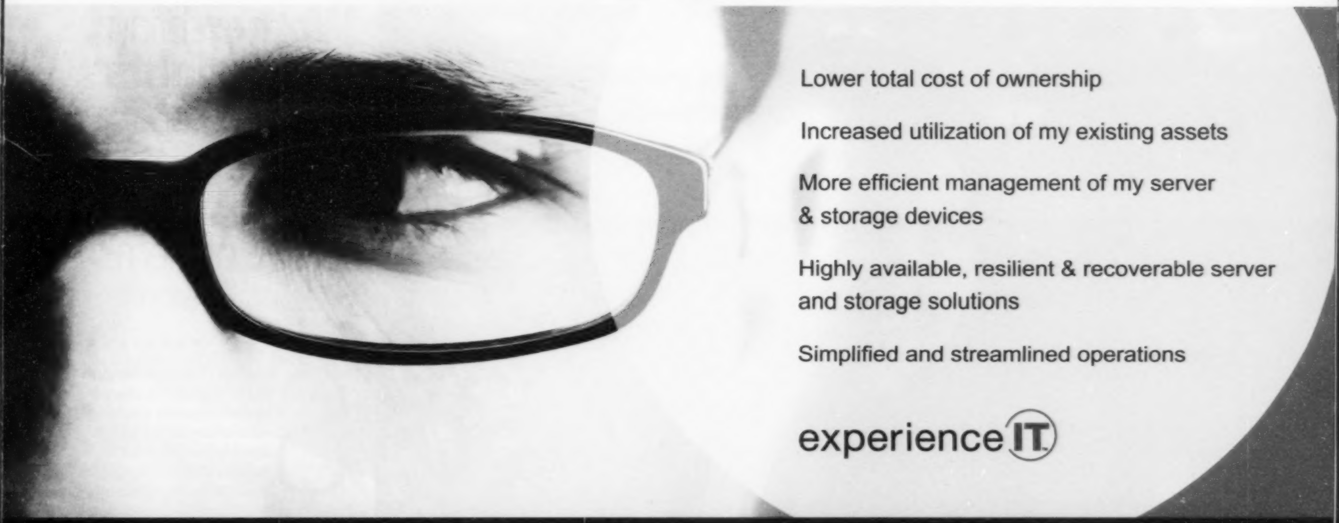
As Forrester analyst Ron Koplowitz explains, "If you've already chosen the vendor [for your enterprise platform], then you've already made a decision about security, directory services and operating systems. So generally, you'll have everything in place."

Support and maintenance is another motivation for buying from a single vendor. "It's much easier to manage one piece of technology that is integrated and runs on one box," Osborne explains.

Whatever you ultimately decide, the time to start considering Web 2.0 is now. "We're at the stage where it's so easy to experiment that it's almost a liability," Murphy says. "You don't want people going down the wrong path with a tool that isn't usable in the long run."

The best move that a CIO can make, he says, is to start asking department managers what Web 2.0 functionality they need, and find the common denominators that will dictate which products to purchase. Then make a decision before your employees do. ▸

Hildreth is a freelance journalist specializing in enterprise software. Contact her at Sue.Hildreth@comcast.net.



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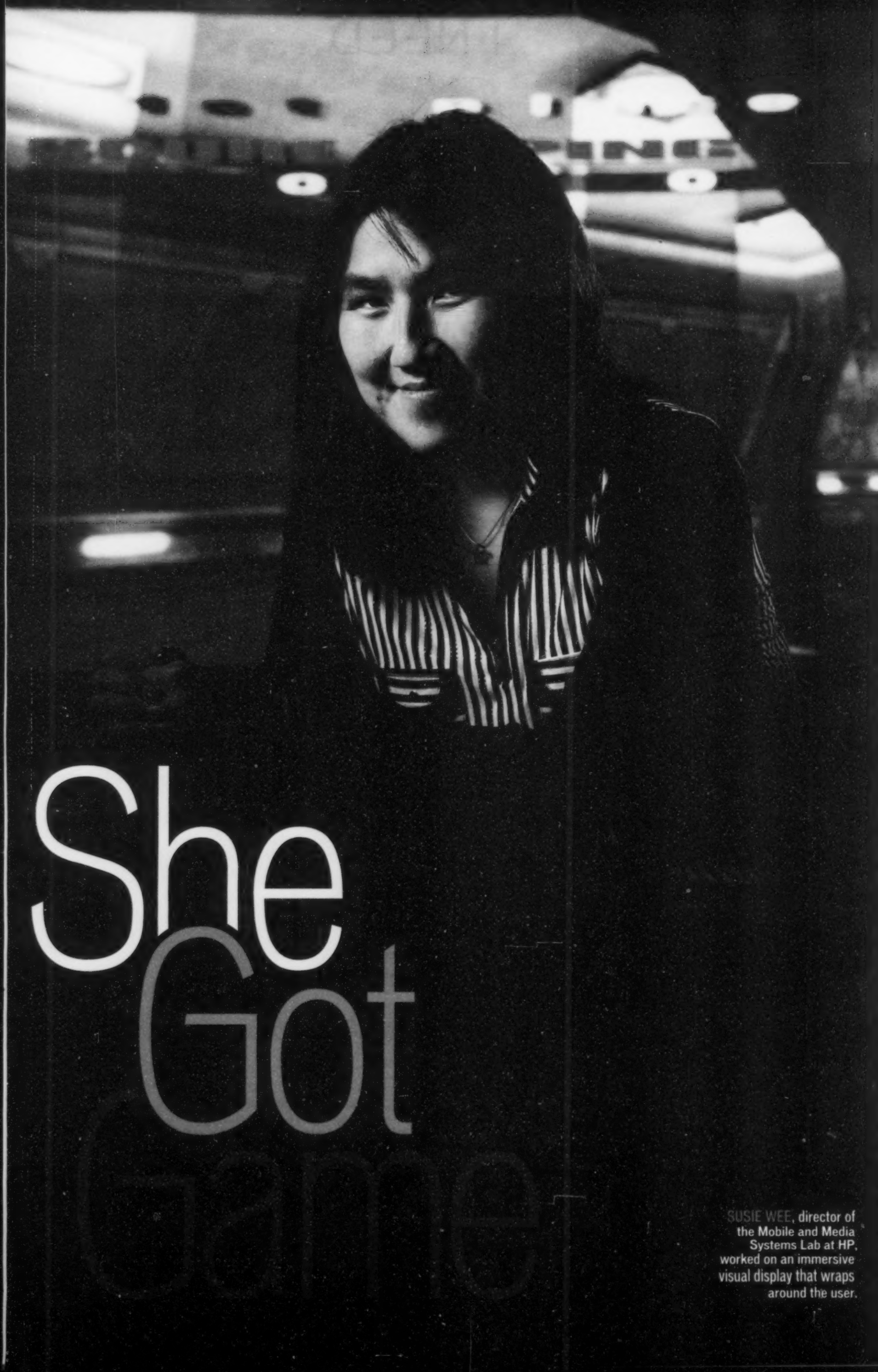

She Got Game

SUSIE WEE, director of the Mobile and Media Systems Lab at HP, worked on an immersive visual display that wraps around the user.

GARY LAUFMAN

Women bring fresh **insights** to computer **gaming**. The industry **needs more** of them.

BY MARY K. PRATT

SUSIE WEE knows that gaming technology is crucial to the corporate world. As director of the Mobile and Media Systems Lab at Hewlett-Packard Co., Wee worked on the company's Panoply project. Panoply uses technology to create an "immersive" visual display that wraps around the user. Developers run algorithms in real time through equipment from VoodooPC — a designer and manufacturer of high-performance gaming computer systems acquired by HP last year — to achieve color and geometric corrections that make a scene look real, Wee explains. Imagine a race-car game where the scenery you pass while driving is realistic and almost panoramic.

HP developed Panoply in part for its Halo Collaboration Studio, a face-to-face collaboration environment. Companies can buy Halo studios to hold meetings with people in various locations, with life-size displays and real-time audio. Wee says Panoply can also be used in military training exercises, scientific visualization, home theater and, yes, computer games.

Wee isn't the only woman making her mark in the male-dominated gaming field.

Jennifer Canada thought about a career as an opera singer. She also contemplated political work. But in college she got hooked on gaming, so she's now a level designer at Vicious Cycle Software Inc. in Chapel Hill, N.C.

Canada decides what events take place in each level of a video game: Does a fight happen? If so, how many enemies attack? Where does the player enter the space and encounter those enemies? Then she uses scripting to set all that up.

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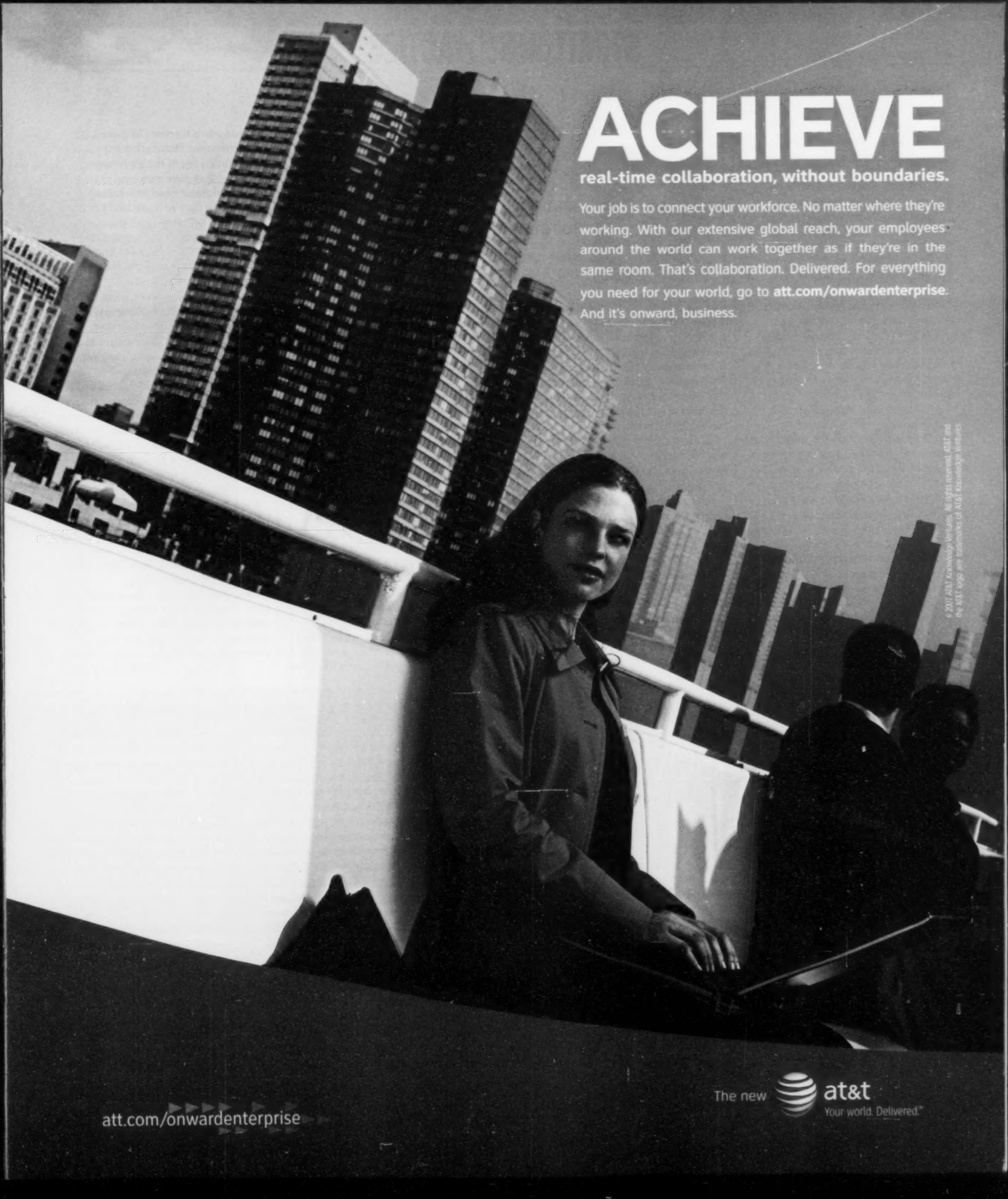
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Continued from page 32

If the gaming industry wants to grow, it needs to attract more women like Wee and Canada. And that's good news for technology-minded women looking for more job options.

"If we want to have [game] titles that reach a diverse audience, our workforce has to reflect that diversity," says Sheri Graner Ray, a game designer and developer at Sirenia Consulting in Austin and chairwoman of the steering committee of the nonprofit Women in Games International (WIGI).

The push for more female workers translates into opportunities for technologists who can bring new perspectives and story ideas to the games market, industry executives say.

And it's an enticing area for tech workers. Game designers — both women and men — say the industry allows them to push technology in ways that they wouldn't be able to in corporate IT departments. They also have growing opportunities to use gaming technology in innovative ways, such as in so-called serious games — training software and other applications that bridge the gulf between gaming and corporate environments.

"The hot technology is out there in the game industry," says Mike Zyda, director of the University of Southern California's GamePipe Laboratory, which awards bachelor's and master's degrees in game development.

> **"If we want to have [game] titles that reach a diverse audience, our workforce has to reflect that diversity.**
>
> **SHERI GRANER RAY**, GAME DESIGNER AND DEVELOPER, SIRENIA CONSULTING

The gaming industry is big business. According to the Entertainment Software Association (ESA), $7.4 billion in entertainment software was sold in 2006 in the U.S. alone. With a number that high, there's no doubt that teenage boys aren't the only ones playing. In fact, ESA's research shows that 38% of gamers are women, and women 18 and older represent a greater proportion of gamers (30%) than boys 17 and younger (23%).

And as the overall number of gamers grows, the need for technologists is exploding. For example, CCP Games HF in Reykjavik, Iceland, employs about 200 people but plans to hire about 100 more in the next two years, with the majority working in the company's Atlanta-area facilities, says Peter Gollan, director of marketing for North America.

Gollan says CCP wants to bring more women on board because only 16% of its staff are female. Industry-wide numbers are even worse: The International Game Developers Association says women made up only 11.5% of the workforce as of 2005, the most recent year for which statistics are available.

And if having more women designers resulted in more women players, there's no question that CCP Games could grow. The gender breakdown for those who play its Eve Online, a massive multiplayer online role-playing game, is 95% male and 5% female.

"If you want to bring in content that's more engaging to women, you have to bring in more women," Gollan says.

What Women Want

Graner Ray is reluctant to say that women like one particular type of game over another. They are as broad and diverse a group as men, and individual women have their own likes and dislikes when it comes to games. But there are some factors that appear to shut women out of the game world.

Graner Ray says men tend to be more exploratory and risk-taking learners, so they're more likely to dive into games by banging all the command buttons until they figure them out. Women tend to want to know how it all works before they put their hands on the controls.

At this point, however, most tutorials are designed for exploratory/risk-taking learners, Graner Ray says. Game makers have to structure tutorials to reach both groups if they want both to play, she suggests.

Moreover, antifemale themes and negative portrayals of women cause many women to shun otherwise popular games, says Jack Hart, CEO of ECD Systems Inc. in Marstons Mills, Mass.

Some argue that women and girls do indeed prefer different types of games than their male counterparts. "Women and girls are more interested in strategy games, puzzle games, as opposed to [being] first-person shooters," says Michael Gartenberg, an analyst at JupiterResearch in New York and a *Computerworld* columnist.

Other demographics have other preferences too, he says. Older people, for example, tend to be less likely to play games that require quick reflexes or have small text. Designing for a broad-

Continued on page 36

Career Crossovers: Possible but Not Effortless

ARE GAMERS and corporate IT workers interchangeable? Not quite, but they're getting there.

Just consider the following skills that employers in the gaming field look for:

- The ability to collaborate and understand end-user needs and abilities.
- An understanding of social Web technology and mobile networks.
- A bachelor's degree in computer science or the equivalent.
- Experience in project management and scheduling.
- Knowledge of C++.
- Networking skills.
- Experience in network server technologies and high-availability services.

Sounds a lot like what CIOs want in their workers, doesn't it?

Maggie Bohlen, director of human resources at game maker High Voltage Software, says executives also want people who have strong oral and written communication skills and can work well with others. Games are built by teams, she explains, so those skills are essential if companies want to successfully develop their products.

In addition, Susie Wee, director of the Mobile and Media Systems Lab at HP, says gaming technology sometimes requires people with very specific skills that can often be gained in corporate settings. She mentions experience working with low-power devices and Web infrastructure as examples.

"You want the best people possible, so you don't want to limit your scope only to gamers," Wee adds.

So far, these skills aren't much different from what corporate IT recruiters seek. But a programmer in the gaming industry may also need skills not commonly required by an IT department. High Voltage, for example, prefers that its programmers have expertise in industry-specific areas needed to build the dynamics of games, including 3-D graphics, artificial intelligence, console programming and assembly language.

So despite similarities in many required skills, Sheri Graner Ray says technologists can't yet move seamlessly between the industries.

"I wish we could, but I don't think we can as much as we should," says Graner Ray, a game designer and developer at Sirenia Consulting and chairwoman of the steering committee of the nonprofit Women in Games International.

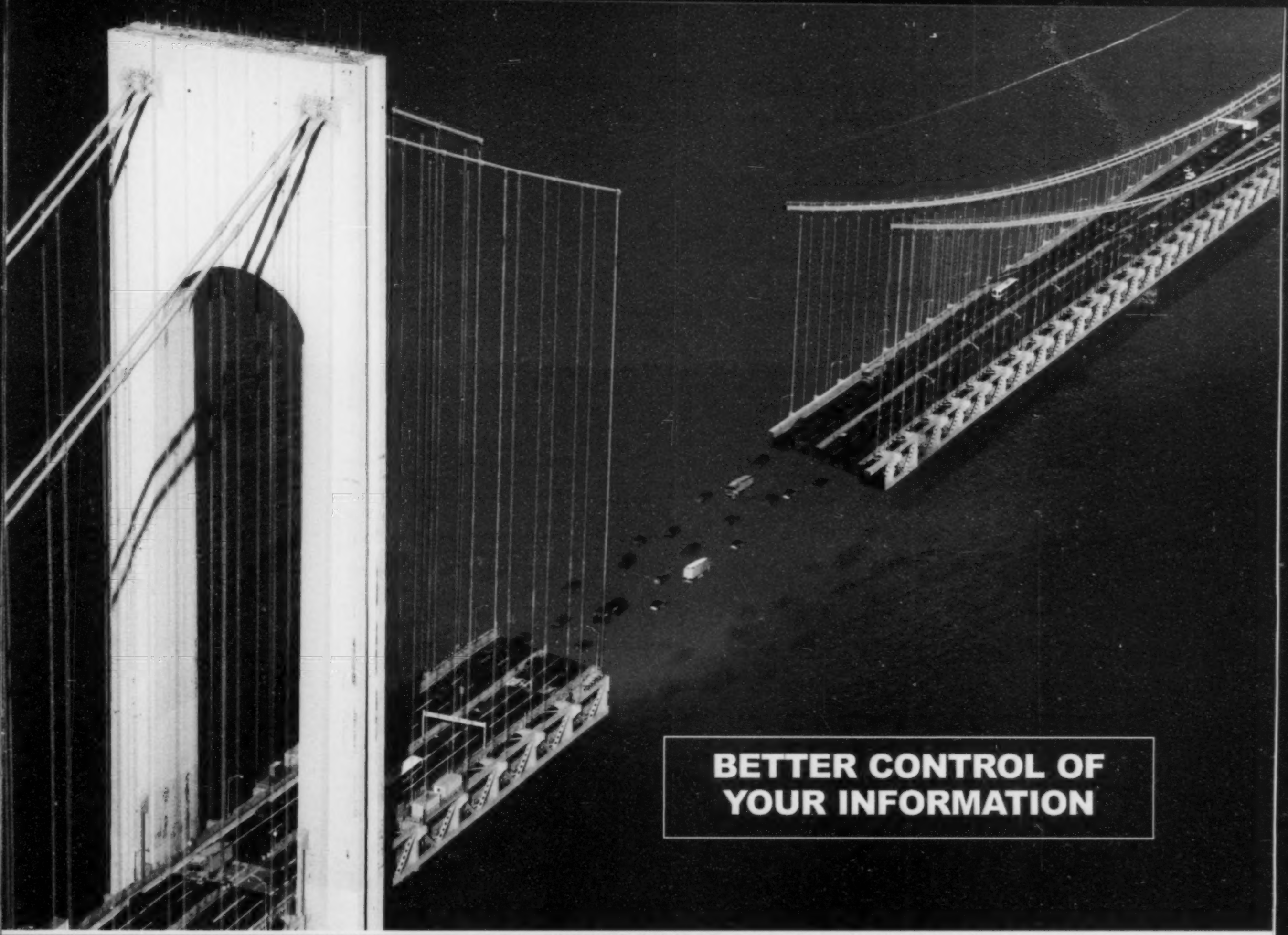
Game makers want developers who not only know the technology but also have experience building games, so they're not always willing to draw workers straight from IT departments.

On the other hand, some IT executives still think that gaming technologists aren't qualified for corporate work. "We do still deal with the stigma of 'You just play games all day long,'" Graner Ray says.

Despite that lingering bias, the tight skills market may push both gaming companies and corporate IT departments to appreciate that there may be more of a skills overlap than they previously realized. That's good news for people like Tara Teich, lead artificial intelligence and gameplay engineer at LucasArts.

"I'm a programmer," she says, "and if I didn't make games, I would still be a programmer."

– MARY K. PRATT



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Continued from page 34

er audience will require the industry to diversify to include a broader range of workers overall, not just more women, he says.

"It's going to be really important for vendors to recognize this if they want to draw new audiences," Gartenberg says, adding that the most successful games — the ones that are universally appealing — are the ones that are just plain fun. "This is one of the things that Nintendo has done that's quite successful with the Wii. It's fun," he says.

"But," he adds, "it's the male stereotype that tends to fuel the types of games being developed, and this gap is creating an opportunity" for women.

> **"The hot technology is out there in the game industry.**
>
> **MIKE ZYDA**, DIRECTOR, GAMEPIPE LABORATORY, UNIVERSITY OF SOUTHERN CALIFORNIA

What Women Bring

Although female developers aren't grouped together to work on creating games for women, they do say they bring something different to the process as individuals.

Canada, for example, who earned certification in level design from The Guildhall at Southern Methodist University, says she might tell her male colleagues that "maybe we don't want another running gun sequence here; maybe we want to offer people some more variety."

Tracy Seamster, a game designer at Sony Online Entertainment LLC in San Diego, says, "I hate killing things that can talk, so a lot of the quests I developed when working on EverQuest II were no-killing quests."

One such sequence has the player searching for a lost dog. When creatures try to attack, a cautious player can get through without any bloodshed. "For me, it's offering options beyond just killing," Seamster says.

And anyone who has played Dungeon Siege: Legends of Aranna can credit Tara Teich for the enemy cats they must face. "I love cats, so as a running joke, I had been pushing to get cats in some shape or form into a game. I enjoy seeing something cute instead of grotesque," Teich says, who notes, however, that the cats in the game aren't really the cuddly variety.

But whether these approaches came about because the designers are women or because they are unique individuals is an unanswerable question.

"Clearly, everyone brings something different to the table," says Teich, lead artificial intelligence and gameplay engineer at LucasArts Entertainment Co., part of Lucasfilm Ltd. in San Francisco. "The best bet is to bring people in who are excited, have good ideas and want to be here."

Moving Toward Diversity

There are some positive trends toward diversification. Graner Ray says a typical WIGI event now draws 250 to 300 women, whereas 10 years ago a major event wouldn't have even brought in 100.

And recruiters say they're trying to draw more women into the field, although gender alone won't get them the job. "If a woman were to apply for a software engineering position, we'd think, 'That's great,' because maybe a woman breaks the mold," says Maggie Bohlen, director of human resources at High Voltage Software Inc., a game developer in Hoffman Estates, Ill.

Bohlen says her company doesn't take any extra steps to recruit women, however. "First, we look for talent: What can they bring to the company?" she says. But she adds that company leaders do see the importance of getting more women into the gaming workforce.

And while Bohlen says she's seeing more women in gaming, she points out that the technology field overall still has a lot of recruiting work to do. "There are still not as many women in the computer programming and software engineering field," she says. "I don't think that's simply related to gaming."

> **"For me, it's offering options beyond just killing.**
>
> **TRACY SEAMSTER**, GAME DESIGNER, SONY ONLINE ENTERTAINMENT LLC

More women would enter the field if there were more games on the market to inspire them, suggests Tracy Fullerton, an assistant professor in the interactive media division of the University of Southern California's School of Cinematic Arts and co-director of the university's EA Game Innovation Lab. That is finally happening, she says. The industry is not only maturing but also broadening, so technology professionals are seeing more options, opportunities and reasons to enter the field.

Just look at the variety of games on the market. Guitar Hero, a rock guitar simulation game from Sunnyvale, Calif.-based RedOctane Inc., as well as free downloads of virtual tennis prove that gaming isn't just about video anymore.

And then there's the Sims series, which includes some of the most popular games among women — and overall, according to Fullerton. The Sims games, published by Maxis and distributed by Electronic Arts Inc. in Redwood, Calif., are simulations in which players control characters and, thanks to artificial intelligence, see how other characters react and interact.

Pointing to Maxis figures, Fullerton says it's interesting to note that 50% of the original Sims design team was female, and 40% of those credited as producers were female. Although she won't speculate that gender balance has anything to do with the games' popularity, she notes that women can find a lot of challenges in the work itself.

"One of the [attractions] of being a game designer is that every game has a new set of problems to solve, so it's actually very exciting," Fullerton says.

Technologists with gaming experience are also branching out. They are increasingly being hired to develop educational and training games, which are particularly attractive to women, Fullerton says. "Women are very interested in making a difference," she says.

She points to one female student who developed an "activist game" to raise awareness about the genocide happening in Darfur.

Other students built games that rely on emotional and cognitive exploration, both growing areas in the gaming industry today. One such game, called Cloud, is an action game that allows players to simulate the fantasy of flight, manipulating clouds and creating weather.

Most games today require strategic skills or mental dexterity — players must react quickly — and fuel aggressive emotions, Fullerton says. Cloud, on the other hand, is meant to draw out "peacefulness, wonder and awe."

Such games have broad appeal, which supports the contention that increasing the ranks of women in gaming is key to expanding the market, Fullerton says.

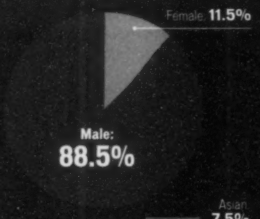
"When I demo these games," she says, "men and women alike say they never play games but these make them want to play." ▸

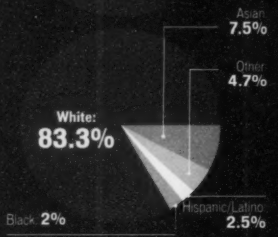
Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

Who's Game?

Game developers

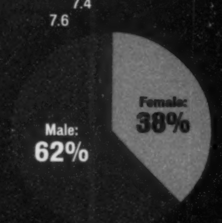
AVERAGE AGE: 31
YEARS IN THE INDUSTRY: 5.4
EDUCATION: 80% are university-level-educated or above

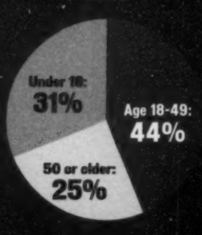




Game players

AVERAGE AGE: 33
PLAYING HOURS PER WEEK:
7.4
7.6





Congratulations 2007 Honorees!

Computerworld's Mobile & Wireless World proudly announced the results of the "Best Practices in Mobile & Wireless" Awards Program. This program honors IT users "Best Practice" case studies selected from a field of qualified finalists.

Honorees in each of the following categories were recognized during the Gala Awards ceremony held Wednesday, May 23rd at Mobile & Wireless World at the Ritz-Carlton in Orlando, Florida.

COMPUTERWORLD
MOBILE & WIRELESS WORLD
Best Practices
IN MOBILE & WIRELESS
AWARDS PROGRAM

Finalists in each of the following categories are:

Business Evolution through Mobilizing Field Workers

Honoree: ***San Diego Police Department, San Diego, California***

Finalists:
- CSX, Jacksonville, Florida
- Gaz Métro Plus, Boucherville, Quebec (Canada)
- J.B. Hunt Transport, Inc., Lowell, Arkansas
- Richmond Ambulance Authority, Richmond, Virginia

Deploying Wireless Mobility in the Enterprise

Honoree: ***General Motors, Detroit, Michigan***

Finalists:
- Atlas Air Worldwide Holdings, Purchase, New York
- Globus, Littleton, Colorado
- Osaka Gas, Osaka City (Japan)
- United States Postal Service, Washington DC

Innovation and Promise

Honoree: ***Providence Public Safety Communications Department, Providence, Rhode Island***

Finalists:
- City of Corpus Christi, Corpus Christi, Texas
- Northrop Grumman Corporation, Pascagoula, Mississippi
- Vassar Brothers Medical Center, Poughkeepsie, New York
- Wound Technology Network, Hollywood, Florida

Maximizing Wireless Security to Prevent Intrusion

Honoree: ***The George Washington University, Washington DC***

Finalists:
- Flagler College, St. Augustine, Florida
- Grant Thornton, Oakbrook Terrace, Illinois
- Intel Corporation, Santa Clara, California
- SunCal Companies, Irvine, California

Judging Criteria

Judges will evaluate and rank the finalists in each category according to their substantiated Mobile & Wireless solution attributes and achievements against a set of criteria such as:

- Strategic importance to the business.
- Positive impact on other business/organization units.
- Substantive customer impact (service, retention, acquisition).
- Provides a strategic advantage to the business/organization while anticipating and accommodating the deployment of future Mobile & Wireless initiatives.
- Financial return and measurable payback (returns on investment, assets, resources) through created/protected revenue opportunities or cost savings.
- Addresses challenges of data, information and application security

Thank you to our "Best Practices in Mobile & Wireless" Judges for 2007:

- Ben Berry, Oregon Department of Transportation
- Rohn Flanders, SAIA
- Matthew Hamblen, Computerworld
- Julia King, Computerworld
- JD Longmire, Northrop Grumman
- Carrie MacGillivray, IDC
- Ron Milton, Computerworld
- George Pollack, Wound Technology Network, Inc.
- Tom Russo, Akridge
- Don Tennant, Computerworld
- Michael Theis, National Reconnaissance Office
- Bill Trussell, TheInfoPro
- Patrick Wise, Landstar

Great Expectations

An otherwise perfect project may go down as a failure if it's not what users anticipated. Here's how to prevent unhappy endings.

By Thomas Hoffman

LIKE OTHER IT MANAGERS, Dom Gugliotti knows how tough it can be to properly set business executives' expectations for big IT projects.

So four years ago, when Gugliotti's employer, Northeast Utilities, embarked on a massive effort to consolidate three customer information systems into one and six call centers into two facilities, one of the first things that he and other project leaders did was to collocate 20 business managers with 40 IT workers to help them stay in sync on the project's products and timetables.

"The closer you can get [business leaders] tied into the decision-making, the better," says Gugliotti, IT project manager for the customer service integration project in Berlin, Conn.

Gugliotti meets daily with his business peers to discuss the status of systems testing and any changes that need to be made in the project specs. "IT and business live together on this," Gugliotti says of the $80 million-plus effort, which is slated to be completed in phases over the course of the year.

Meeting deadlines and staying within budgets are the most obvious challenges in any IT project, but the biggest test of all may be managing the expectations of your business clients. "It's a huge challenge for IT organizations to stay aligned with the business on projects," notes Barry Cohen, vice president of applications management at Wells Real Estate Funds in Norcross, Ga.

That's partly because business leaders and IT project managers often have different ideas from the start about the benefits a project will deliver. For example, Cohen says, business managers sometimes fail to grasp what effect IT projects will have on their operations and how much their internal business processes may have to be amended to work with new systems.

To set expectations when Wells outsourced support of its Oracle financial software beginning last May, Cohen tried to ensure that there were no communication gaps between the IT team and business leaders. He talked to business managers and staffers in formal and informal meetings, explaining that any changes made to the functionality of the software would take longer under the outsourced arrangement than when support was in-house.

"It's part of our normal procedure to let the business know how the changes would affect them," says Cohen.

Getting Aligned

In December, Freddie Mac's CIO, Jim Hughes, began making changes to the way the company's IT organization is aligned with its businesses. Before then, each of the business units at the McLean, Va.-based mortgage purchaser had dedicated IT staffers who served as liaisons working on strategy, planning, project initiation and development. But the focus on project development overtook the other activities, says Hughes. So when he reorganized, he separated the other client-facing activities from development. That has helped Freddie Mac's IT group to maintain a more consistent focus on areas such as strategy and planning with business unit leaders, he says.

Tips on Alignment

- **Don't allow secret agendas.** Require all stakeholders to clarify their expectations from the beginning. Then hash them out until there is an agreement.
- **Work together on setting goals.** Don't let business leaders dictate expectations.
- **Clarify the cost of changes upfront.** Make sure stakeholders understand that a change in budget, deadline or scope will affect the other two.
- **Learn what the business unit's priority is with each project,** whether it's meeting a deadline, cutting costs or creating a new functionality. Then focus on that priority.
- **Collocate business and IT staffers if possible.** Nothing beats frequent face-to-face meetings with business sponsors. Don't be afraid to overcommunicate.
- **Explain to end users how and why support will change if you've outsourced an IT activity.**

– THOMAS HOFFMAN

"The level of collaboration is significantly higher," and that leads to better alignment, says Hughes. "We're directly influencing the definition of those expectations, [not] just responding to expectations." By focusing on this activity, IT staffers who work on the client services side aren't distracted by implementation, he says.

On the development side, aligning expectations early is also key. "Eighty-five percent of the success occurs in the first 15% of a project," says Hughes. That's when a successful project manager defines the scope, explains the nature of the effort being addressed, and makes sure that it's well understood and that the expectations of all stakeholders are realistic, he explains.

> **The closer you can get [business leaders] tied into the decision-making, the better.**
>
> **DOM GUGLIOTTI,**
> IT PROJECT MANAGER,
> NORTHEAST UTILITIES

More help comes from Joseph Smialowski, Freddie Mac's executive vice president of operations and technology. About a year ago, he created a communications program known as "Month in a Box." A cardboard package is given to each of Freddie Mac's operations and technology leaders. It contains a detailed message with steps on how to communicate with end users and business sponsors in a consistent way to help ensure aligned expectations.

The program encourages IT leaders to share information about Freddie Mac's operations and technology strategies with IT staffers and business managers and to explain how these fit into the company's overall goals. One recent Month in a Box clarified Freddie Mac's new approach for developing systems, explaining what a systems development life cycle is and why it's needed. It also included a one-page framework to help IT leaders create a dialogue with their teams.

But even when business and IT begin in sync, their expectations can diverge as a project progresses, particularly when difficult changes are required. Since the scope of a project can change midcourse, says Hughes, "it's best to recognize this upfront" and prepare business leaders for it. Deadlines might have to be pushed back if changes are made during development or testing, for example, or certain functions may have to be sacrificed if new functions are added.

Staying Aligned

That kind of understanding needs to be reinforced over time. "Assumptions have to be monitored and communicated often" as changes occur, says Jack Duggal, a principal at Projectize Group LLC, an Avon, Conn.-based project management consulting firm.

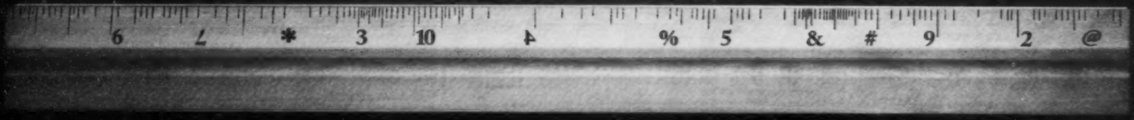
At Wachovia Corp., that monitoring and communication take place during biweekly meetings between project and business leaders, says Tony Bishop, senior vice president and director of architecture and engineering at the Charlotte, N.C.-based bank. The project review includes a single dashboard summary of tasks, milestones, deliverables, accomplishments, open issues and project components that require tweaking, says Bishop.

Working together this way enables business and IT to stay on the same page when changes in plans are required. For instance, Wachovia recently needed to introduce new trading indices more quickly than a project plan had initially called for. The project leader arranged a meeting with the bank's head of research to collaborate on a scope adjustment that allowed the project timelines to be accelerated "and still deliver what the business needed overall," says Bishop.

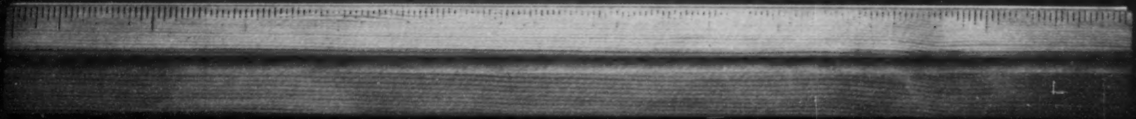
At Northeast Utilities, Gugliotti's IT group works on alignment continually through daily interactions.

By working side by side, business and IT staffers can weigh the impact of proposed project decisions against the difficulty of carrying out those decisions, he says. For instance, the project team recently discussed a possible design change in a project that was under way, including the risks and challenges of trying to execute such a change so deep into the project. The team members decided on using a work-around instead.

"It's amazing what co-ownership of the schedule and budget and sitting side by side can do to your expectations," says Gugliotti. ■



In IT, the wrong metrics could be



worse than no metrics at all.

Not sure how your IT investments measure up? You're not alone. Despite studies that show a critical connection between the right success metrics and higher-performing businesses, most CIOs still wrestle with measurement processes that are unreliable at best, and misleading at worst. To see how Accenture Technology Consulting can help you measure and enhance the value of IT, visit accenture.com/technology

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Search Engine Optimization

DEFINITION

Search engine optimization (SEO) is the process of ensuring that search engines are more likely to find and access your Web pages. SEO's purpose is to improve the volume and quality of Web site traffic generated by searches.

BY RUSSELL KAY

IF YOU HAVE a public Web site, you want people to visit it. Whether its function is to disseminate information, promote shopping or other commercial transactions, or generate advertising revenue, your site won't be effective if no one sees it. Since most Internet users rely on search engines to find Web sites, good search listings can dramatically increase site traffic.

Everyone wants those good listings. Unfortunately, many Web sites appear far down in search engine rankings or may not be listed at all because their designers don't consider how people search and how search engines work.

Consider a typical query. Fire up your favorite Web search engine, type in the keywords you're looking for, and hit Return. In a few seconds, you'll be looking at the first few of a series of Web sites that fit your criteria. But how are these results generated?

In preparing this QuickStudy, I searched for "search engine optimization" on Google. It told me it had found at least 22,800,000 sites and listed the first 10.

Users generally assume that the most relevant entries will be presented first, but in fact each search engine uses different algorithms and selection criteria to rank the pages it presents. Thus, different engines will rank and present the same set of pages differently.

Users who are very determined in their research might explore beyond the first few entries or pages of entries. But if your site is buried down even a couple of hundred entries in that 22-million-long list, they'll likely never see it. This is where search engine optimization, or SEO, can make a big difference by improving the ranking a page gets.

How Searches Work

Most search engines, such as Google, are crawler-based and create their listings automatically. They "crawl" the Web, looking at both the form and content of Web pages. Page titles, body copy, and coded instructions and keywords all play a part in this process.

Automated search engines don't just rely on how often they find query terms on a page. An important technique, pioneered by Google, is link analysis, which looks at how pages connect to one another. The general assumption is that a page that many others link to is probably more important than one that stands alone and thus it should get its ranking boosted.

Another factor is click-through measurement. Here, a search engine watches which results a user selects from a particular search, with a view toward dropping high-ranking pages that don't attract clicks and promoting lower-ranking pages that do collect hits.

Some search engines (but not many) depend on living, breathing people to create their listings. You either submit a short description of your entire site, or special editors write descriptions for sites they have found and reviewed. In this type of search engine, queries look for matches only in the written descriptions, not in the actual pages themselves.

Finally, some hybrid engines combine both automated and human indexing.

What SEO Does

Optimizing a site for search engines can take many different forms. SEO works by understanding how search algorithms function and what human visitors might search for. It may involve changing the coding, presentation and/or structure of a site to avoid or fix problems that could prevent search engines from fully exploring a site. Here are some factors that must be taken into account:

Keywords. The choice, location and frequency of keywords on a page can make a big difference. Most SEO specialists advise using phrases of two or more words. Also, many search engines give more weight when a keyword is located in the title or early in the Web page.

Targeting the most effective keywords is critical. Besides choosing the relevant terms that occur most often, it's helpful to devise processes to measure predicted traffic (how many users will search for the term each month), conversion rate (how many users searching with the term will click on an ad, buy a product or finish a transaction) and value per customer (how much revenue, on average, is generated per customer who uses the search term).

Look at the competitive environment for your keywords: Who else is using them, and how well do they work? When starting a new site, it's often better to use only one or two unique phrases per page, keeping other terms on different pages where you can provide individualized information for each.

Relevant content. Keywords should reflect the page's actual content, so you need to include HTML text on your page. Graphics are nice, but search engines can't read them and may miss text that could make your site more relevant.

Stumbling blocks. Some search engines may not read image maps or frames the way you expect. Unless you anticipate and work around these problems, some engines may not index your Web pages. If pages on your site are generated with Common Gateway Interface or from databases, some search engines can't index them. Consider creating at least some static pages, possibly having the database update the pages rather than generate them on the fly. ▸

Kay is a Computerworld *contributing writer in Worcester, Mass. You can contact him at russkay@charter.net.*

To find a complete archive of our QuickStudies, go online to
computerworld.com/quickstudies

SEARCH ENGINE SPAMMING:

The Dark Side

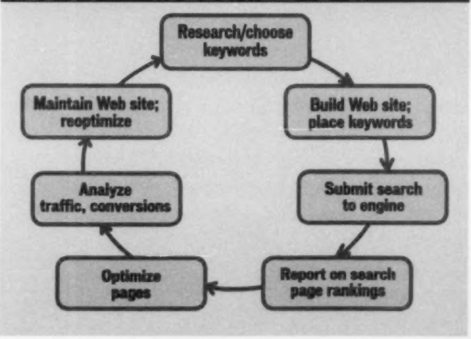
SEO'S FUNCTION is to improve site visibility, but some Web sites and organizations have taken advantage of the automated nature of most search engines to try to deceive them and unduly influence their rankings. For example, some pages repeat a word hundreds of times in an effort to move the page higher in search listings or they link to highly ranked pages. But as with e-mail, spam is spam.

One deceptive technique involves text that is completely invisible or merely unreadable because of color, size and background. Cloaking – showing one version of a page to the search engine and another to human visitors – is another trick.

Today, most search engines use sophisticated techniques to watch for common spamming methods, and they follow up on complaints from users. Spamming can backfire when search engines detect the spamming attempt and penalize or ban such pages from their listings.

– RUSSELL KAY

THE SEO CYCLE


Research/choose keywords
Build Web site; place keywords
Submit search to engine
Report on search page rankings
Optimize pages
Analyze traffic, conversions
Maintain Web site; reoptimize

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Find out when Computerworld publishes the results from its 21st Annual Salary Survey of IT professionals!

COMPUTERWORLD
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How much are other IT professionals with your experience and credentials earning? With help from you and your IT colleagues across the country, *Computerworld* will answer that question when we deliver the results from our 21st Annual Salary Survey.

Please take our survey now and enter a drawing to win one of 10 Apple iPod Minis. The survey period closes Friday, June 29, at 5 p.m. Eastern time.

Survey results and feature stories offering practical career advice will be published in the Nov. 12 issue of *Computerworld*. We'll provide detailed information on average salaries and bonuses, broken out by title, industry and region. You'll be able to compare your organization's compensation plans with those of other companies and find the hottest areas of the country for IT pay.

Take the survey and qualify for the drawing!

Go to computerworld.com/salarysurvey2007

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Sometimes, You Just Can't Avoid Politics

It's especially difficult when you work in a state agency and a new governor and his newly appointed top IT people are talking about consolidation. By C.J. Kelly

SECURITY MANAGER'S JOURNAL

WHEN A new governor comes into office, you have to expect changes if you work for a state agency. For the new administration in my state, budget cuts were the first thing on the agenda. I had to slash my budget proposal by 16%, just like everyone else. I was relieved that I didn't have to let any people go, but I had to forget about buying some equipment.

Budgets are finally closing, now that every detail has been repeatedly scrutinized over the past several months. I had to explain why storage-area network technology is important for disaster recovery purposes to several levels of agency management, as well as to the legislature and the state budget analysts. The higher I got in the bureaucracy, the more I had to translate how this works into nontechnical language — not an easy task.

The next thing the political winds blew my way was a statewide, top-to-bottom consolidation of IT and information security. And unfortunately, there's no getting the politics out of this project. My inclination is to take the logical approach; I want to study the problem, come up with some hard data, plan the strategy and then migrate in the correct direction. But planning and collaboration are taking a back seat to jockeying for position.

I've heard that there are two basic types of power: personal and positional. I have always relied on personal power to manage and get things done. It is rare for me to have to pull rank on someone. In fact, that has happened only when someone's safety or well-being was at stake. I prefer negotiation and collaboration. Consensus can be hard work, but the results are well worth it.

My preference matters little in this situation, though. Every agency has something at stake in this game. A state government is generally organized as agencies that are part of larger departments that are part of the executive branch, where things are directed by political appointees. Our new governor has named a new state director of IT and a new chief information security officer (CISO). They, in turn, are calling for this consolidation in the name of saving taxpayers money. I'm a taxpayer, so I'm in favor of that, but it seems that everyone involved is seeking positional power. The various players want to increase their head counts and control by pulling people out of the agencies and into their own domains in the name of consolidation. They want our equipment and talent. To what end?

> It's not clear to me or anyone else that a planned and logical consolidation is going to occur.

Departments that can demonstrate internal collaboration among their agencies will apparently be spared the worst effects of consolidation. Therefore, some departments are working feverishly to demonstrate collaboration. The smallest ones are likely to be hit hard by consolidation, however. My agency is part of a department that's big enough to warrant managing IT and security at the departmental level. And so the director of the department has told his IT managers to perform a complete inventory of people and equipment to find where there might be synergy. These managers are good people, doing good work, and they will find new ways to share talent and resources.

Playing the Game

Here's an example of the type of thing that is going on. I recently purchased the hardware and software to implement forensic-level security investigations. I offered, in the name of collaboration, to share what we had with the other agencies in the department so we could standardize on an approach for security investigations. A few days later, I received an e-mail from the CISO suggesting that I give the software and hardware to his staff to implement.

My first thought was, "Over my dead body." But I spent a few days thinking about it and responded in a diplomatic way. I let him know that we had the hardware set up in a hosting center that could be made accessible to his staff and that I would be happy to work with his staff. In this way, I should be able to retain control, even as I demonstrate that I am sharing. I've invited his staff to take part in the technical training we have established on-site.

As the consolidation push continues, my management has asked me to step into the limelight a bit more, since I have experience and credentials that most people here are lacking. I am really not interested in doing that, though. It's not that I'm chicken; I have never had a problem speaking the truth in a public forum, regardless of the potentially negative effects that could be in store for me. In this case, however, I'm just not sure I want to waste my energy.

Meanwhile, the politics becomes personal. It's not clear to me or anyone else that a planned and logical consolidation is going to occur. The only thing that seems certain is that politics will reign supreme. The things that are important right now are who you know and who you can influence using your positional power. Since I don't engage in positional power plays, I am keeping a low profile.

Not everyone shares my aversion, of course, and such employees will probably come out of this better than the rest of us.

There is one particularly power-hungry person within my department who has been propagating rumors and lies about how he is eventually going to run IT and security for the entire department. We mostly ignore him, but who knows? As I am coming to find out, it's all about politics, and this guy could end up being my boss at some point. With that possibility in mind, I am making sure that I don't cross swords with him. ▸

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com, or join the discussions in our security blogs: **computerworld.com/blogs/security**.

To find a complete archive of our Security Manager's Journals, go online to **computerworld.com/secjournal**.

SECURITY LOG

Even IT Pros Fail to Secure Passwords

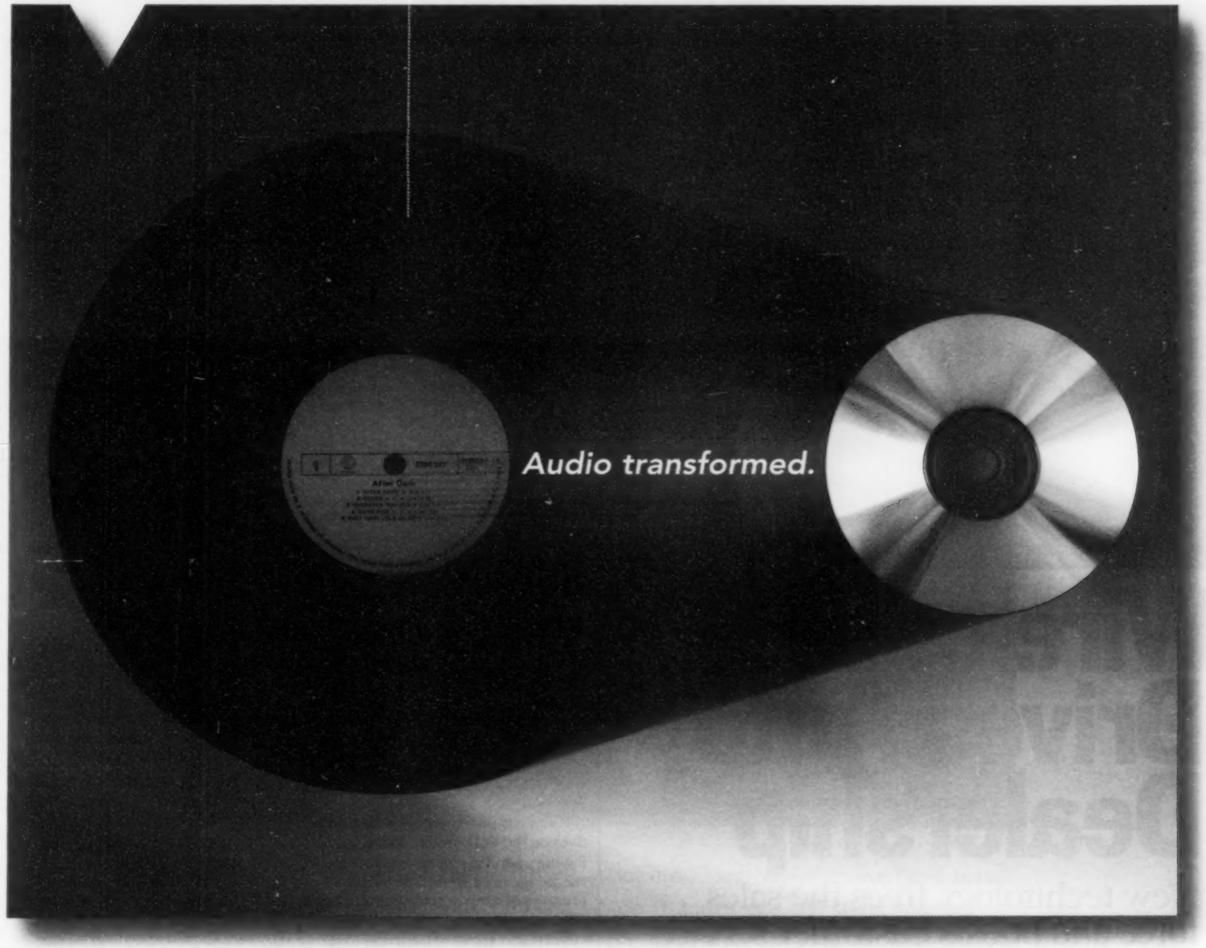
Most companies mismanage administrative passwords by keeping them in unsecured locations and not controlling access to them, according to a survey by Cyber-Ark Software Ltd. The results show that 57% of companies store their administrative passwords manually, and 18% store them in an Excel spreadsheet; 82% of IT professionals store them mentally. The survey, conducted at a security conference in London, also found that a third of IT professionals snoop in employees' personal files on company servers.

Engineer Devises Cheap Encryption

Laszlo Kish, an engineer at Texas A&M University, has devised a seemingly foolproof and cheap way to encrypt messages using the natural noise caused by electrons flowing along a wire. Data messages can be sent intermittently and camouflaged by this "thermal noise," according to Kish.

Phishing Sites Spike in April

The number of phishing Web URLs nearly tripled from March to April, according to the Anti-Phishing Working Group. The APWG, an association of more than 1,600 companies and government agencies, said cybercriminals tried to overwhelm antiphishing filters by using multiple URLs for a single phishing site. In one month, the number of unique sites soared 166%, from 20,871 in March to 55,643 in April. Phishers using the tactic don't register any more domains than usual but simply craft unique URLs by randomizing the subdomain to create new addresses.



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TOYOTA moving forward

Kings Toyota is using a wireless VoIP system to unchain its salespeople from their desks.

DAVID COSSENTINO

Wireless VoIP Drives Auto Dealership

New technology frees the sales force and boosts customer service at Kings Toyota. **By Burt Latamore**

WHEN KINGS TOYOTA built its 68,000-square-foot new-car showroom — the largest Toyota showroom in the U.S. — across the street from its existing facility last summer, a new wireless voice-over-IP system from SpectraLink Corp. was so integral to the expansion that the showroom's opening date depended in part on when the VoIP system would be ready.

The main issue, says General Manager Gerry Carmichael, was that the new Cincinnati facility was an expansion rather than a replacement. The old building remains as a used-car showroom and repair facility.

"Salespeople move back and forth between them during the day, and if a customer calls, we need to be able to find them," Carmichael says.

That was one of the business drivers behind the VoIP decision. But why VoIP rather than cellular? "I can't put cell calls through my switchboard," Carmichael says. "The VoIP system works with our existing switchboard and voice mail, so I can reach a sales or service person by dialing his extension, and he can get his voice-mail messages between customer meetings."

Another key benefit of VoIP is that "it unchains my salespeople from their desks," he says. "Before we instituted the VoIP system, if a salesperson was waiting for an important call, he had to stay in his office; he couldn't watch the lot [for customers]. Now he can do both."

Actually, the salespeople no longer have offices. Instead, the new facility is almost all show floor, maximizing sales space. As any retailer knows, maximizing floor space in a store is vital to success and is a sufficient reason for investing in technology. "We have 150 new Toyotas on the floor," Carmichael says. They are arranged with round tables near them so "when a customer finds the right car, she can sit down right next to it with the salesperson to discuss it," he says.

Another business driver is the need for quiet. "A sales environment needs to be reasonably quiet and free of distractions, and we had constant paging going on over the loudspeaker system. And our switchboard was being overloaded," Carmichael says.

The VoIP system has practically eliminated the need for pages and relieved switchboard problems. When a salesperson sits down with a customer and doesn't want to be interrupted, he can turn his phone off. When he is finished with the sale, he can turn it back on and get his voice mail.

Carmichael also wanted to streamline internal communications. With salespeople constantly moving between the two facilities, finding a specific salesperson would be a challenge without wireless communications. With VoIP, all a sales manager needs to do is dial the person's extension.

Kings has put its service representatives on the VoIP system as well, allowing a service person to walk onto the garage floor while discussing the progress of a repair with a customer on the phone.

VoIP also allows salespeople to forward their calls to their cell phones and dial in for their voice mail on their days off. "In our business, being available is everything," Carmichael says. "If you have been working with a customer for a week, and they call you with the one question that will get you the sale on your day off, and they can't get you but they can get your competitor, you miss the sale."

Has it worked? "Our sales are up 48% since we opened the showroom on July 28," says Carmichael. "I have a hot product and a beautiful facility, so I can't credit VoIP for all of that. But it has made my staff more available, freed everybody up to spend more time on the floor selling and improved customer service, so I think it definitely has played an important part." ▸

Latamore is a freelance writer in Linden, Va. You can contact him at bert.latamore@gmail.com.

Not So Fast

Despite the many benefits of VoIP, there are serious issues to consider before making the leap. Bryan Cohen, a telephony engineer and VoIP expert at CDW Corp. in Vernon Hills, Ill., points out some of them:

1. **Think of voice traffic as data.** In many respects, VoIP traffic is just like data traffic, so consider issues such as security, availability, power and bandwidth.
2. **Know why you want it.** Assess the features you need to support your users in terms of productivity, responsiveness and cost, and determine whether VoIP really delivers what your current system can't.
3. **Evaluate your network's readiness.** Work with an adviser or peer who has gone through a VoIP rollout, to sort through all of the implications and review the pitfalls.
4. **Consider your organization's business model.** How might an outage affect your business? For a corporate customer service center, for example, you may want to consider a hybrid of VoIP and traditional PBX systems because the telephone is so crucial.
5. **Focus on the WAN.** Connectivity is everything. Invest in the pipe that will support the VoIP network.
6. **Understand the management implications.** It might be tempting to create islands of VoIP networks for small, remote offices, for example, but a central system with remote gateways at branch locations offers many management benefits.
7. **Try before you buy.** The only way to truly know how VoIP will perform on your network is to put it through real-world testing.
8. **Think outside the IP telephony box.** Consider hidden gotchas, like the need for a Trivial FTP server that updates the phones with patches and features upgrades.
9. **Train, train, train.** Go through product training before you commit to buying. You may realize that you need some functions you never considered.
10. **Be cautious about outsourcing.** Outsourcers bring benefits and risks. For example, when you outsource, you cede control of your phone calls to a third party, and you may be limited to the features that the service provider offers.

– SANDRA GITTLEN

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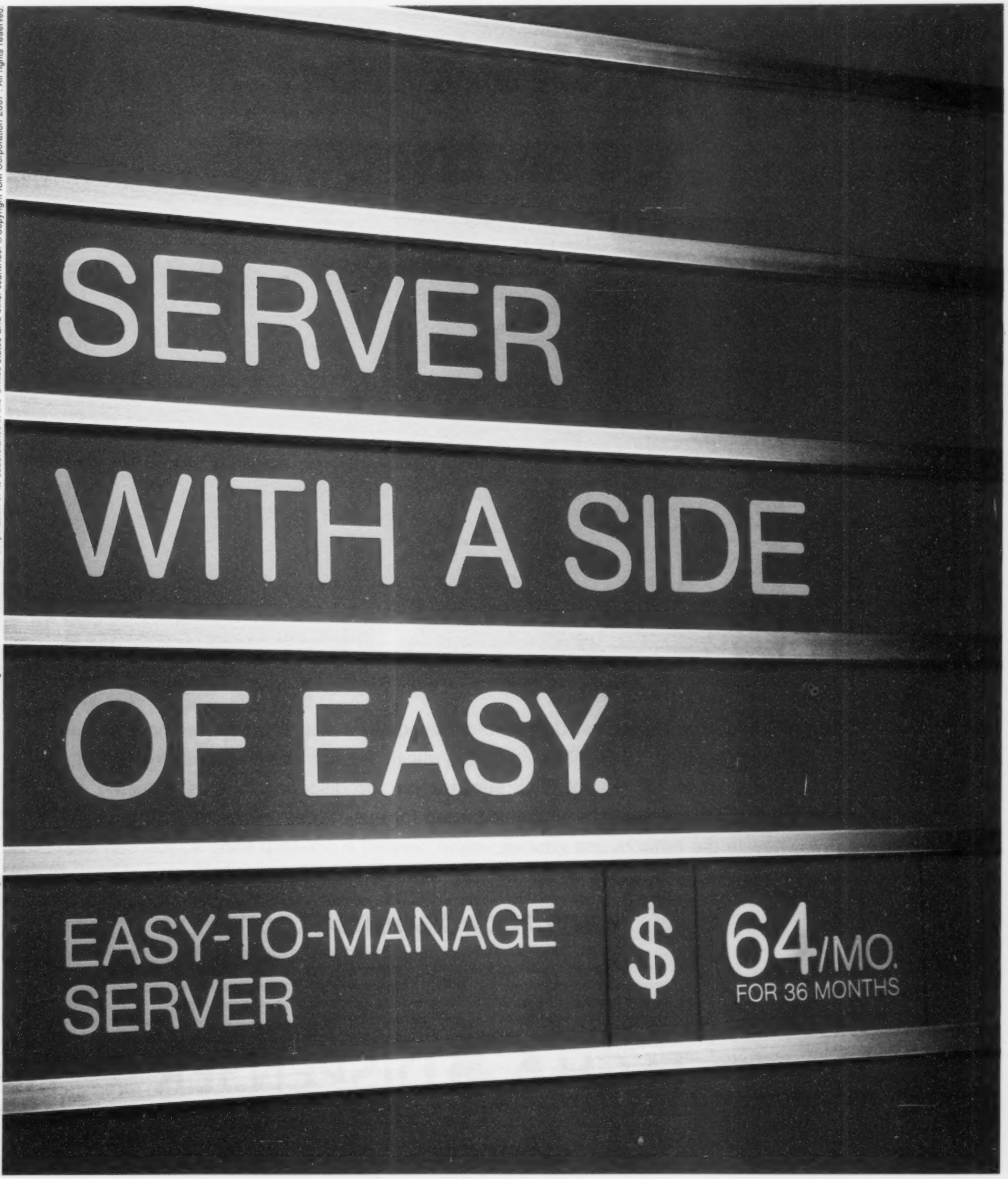
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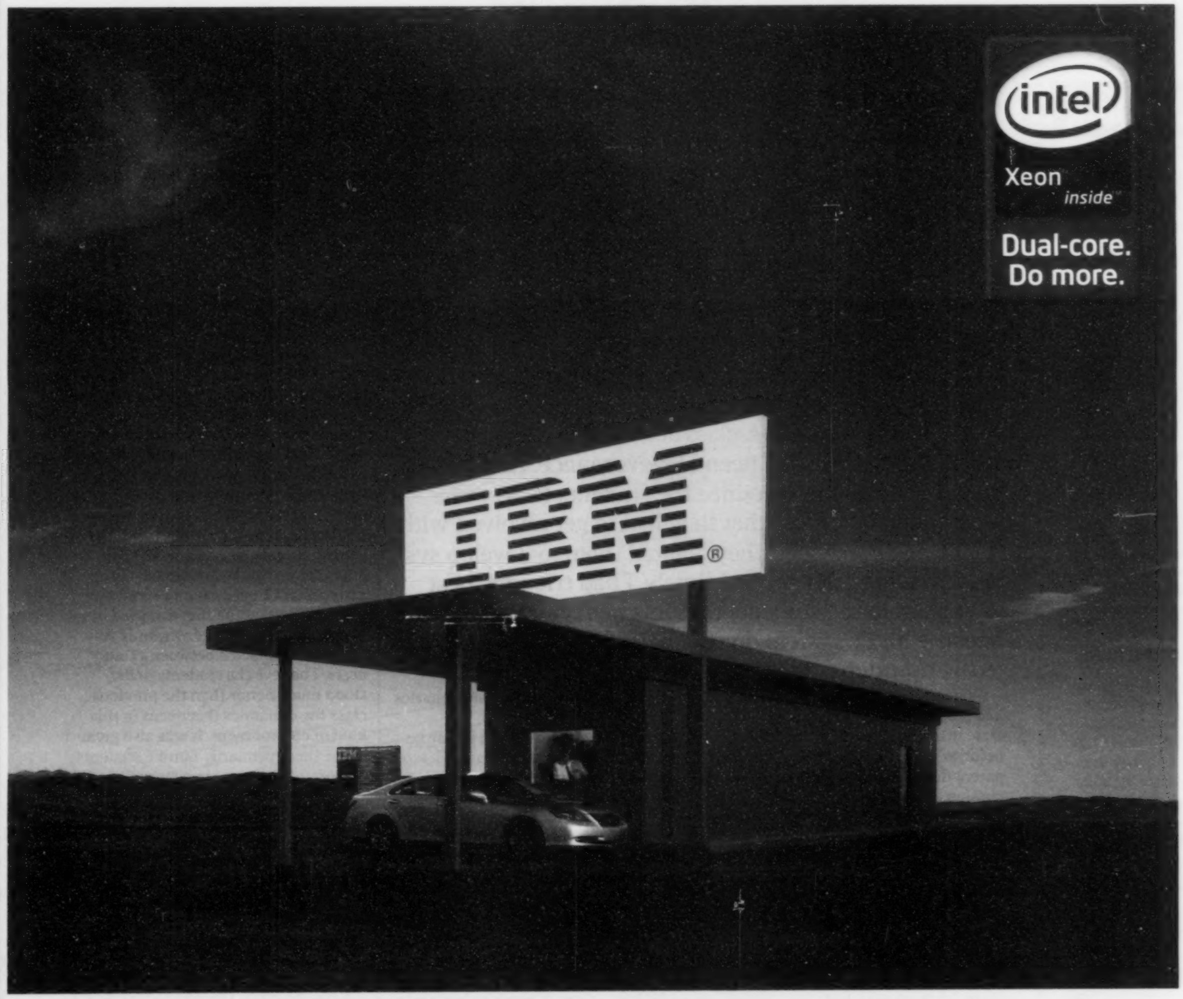

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EXEC TRACK

Martin-Flickinger To Head IT at Adobe

GERRI MARTIN-FLICKINGER has been named senior vice president and CIO at Adobe Systems Inc. She will report to Mark Garrett, Adobe's executive vice president and chief financial officer. Martin-Flickinger was previously CIO at VeriSign Inc., Network Associates Inc. and McAfee Inc.

Butler Chosen as CIO At Norfolk Southern

DEBORAH H. BUTLER has been named CIO and executive vice president for planning at Norfolk Southern Corp. She will report to CEO Wick Moorman. Butler joined the Norfolk, Va.-based transportation company in 1978 and has served in various management positions, most recently as vice president of customer service.

Coady Tapped as CIO At Frontier Airlines

GERRY COADY has joined Denver-based Frontier Airlines Holdings Inc. as vice president and CIO. He will report to Chief Financial Officer Paul Tate. Previously, Coady was chief technology officer at Evident Software Inc. and chief IT officer at Xcel Energy Inc.

Pacheco to Serve as Archer Daniels' CTO

MICHAEL A. PACHECO will join Archer Daniels Midland Co. in Decatur, Ill., as CTO and a member of the strategic planning committee. He will report to Chairman and CEO Patricia Woertz. Previously, Pacheco was director of the U.S. Department of Energy's National Bioenergy Center at the National Renewable Energy Laboratory. Prior to that, he was a research fellow at Louisiana-Pacific Corp. Archer Daniels Midland produces bioenergy products such as ethanol.

ADC Appoints Jurasek CIO

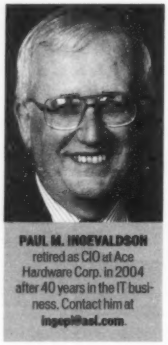
CHRISTOPHER JURASEK has been appointed CIO at ADC Telecommunications Inc., a Minneapolis-based firm that provides networking services. Previously, Jurasek was vice president of customer service and logistics and CIO at Rexnord Corp.

PAUL M. INGEVALDSON

IT, We Have a Problem —Revisited

IN A RECENT COLUMN (Nov. 27, 2006), I chronicled my frustration while serving as a guest lecturer in a management of information systems technology MBA class at a local university.

My topic had been IT governance. As I wrote here, I had tried to convince the students (who were mostly non-IT types) that they had to get involved with the IT departments if they wanted them to develop systems that are relevant and timely. I had tried my best to explain to the students that this behavior was needed because an IT system doesn't belong to IT; it belongs to the user department.



PAUL M. INGEVALDSON retired as CIO at Ace Hardware Corp. in 2004 after 40 years in the IT business. Contact him at **ingepi@aol.com**.

Much to my dismay, I had been unable to get the class to understand this point, which became apparent during a group discussion toward the end of my time with them. As one of the students put it, "I still don't understand why IT isn't completely responsible for their projects, just like I am responsible for my projects."

Despite my ineffectiveness — or perhaps because of my frustration — the professor invited me back for the next class. Apparently the students had enjoyed my presentation even though they didn't agree with me. For the second go-round, the professor and I met several months before the class and devised a better way to get the point across. We adjusted the timing of the governance lecture, expanded the case study depicting a fictional steering committee meeting to select the next year's projects and, most important, totally changed the final exam.

Instead of the typical multiple-choice or essay exam, I created a series of scenarios depicting systems problems that typically occur during development. The five scenarios were as follows:

1. The system is way behind schedule, and the user blames IT while IT blames the user for changing the specifications.

2. The chief financial officer complains to the CEO that finance is not getting its fair share of IT time and wants to consider going to an ERP system. The CFO feels that ERP would solve the problem, since it would help his people get projects done more easily, with less IT time.

3. The chief marketing officer complains that the marketing system that was selected by the committee has been deferred in favor of a mandatory, government-imposed system.

4. IT has encountered a major technology problem that will require either a system upgrade or rework of the system logic.

5. The major vendor involved with the new system has just announced its decision to withdraw from the market, leaving the developers facing more-expensive alternatives.

The final exam required each of the five groups in the class to present one of the scenarios to the entire class. Members of the groups played the roles of CEO, CFO, CIO, CMO, IT project leader and IT-marketing liaison. Their objective, in 20 minutes, was to outline the problem, discuss alternatives and reach some kind of reasonable decision or follow up. They were also expected to bring into the discussion many of the items that they had learned in the class.

I was absolutely delighted with the results. It was great to hear the students discussing the issues that typically affect IT systems and showing their understanding that this kind of a collaborative meeting is the only way to resolve problems between IT and users. I believe the students understood much better than the previous class the dynamics that occur in this kind of environment. It was also great to see these primarily non-IT students discussing IT issues in a forceful and committed way.

After the role-playing was over, I had an opportunity to ask students about the experience. Their reactions to the process they'd gone through were overwhelmingly positive. I believe that they came to an understanding that will serve them and their IT departments well as they return to their respective companies.

After the class, I thought about how this simple exercise would probably be just as effective in companies that are having similar problems with understanding the dynamics between IT and user departments.

If this fits your situation and you would like to try this at your own company, drop me an e-mail. I'd be happy to send you all the materials that I used. I believe this approach to understanding the roles of IT and users in IT systems development is crucial for our long-term success. Good luck, and I look forward to hearing from you. ▸

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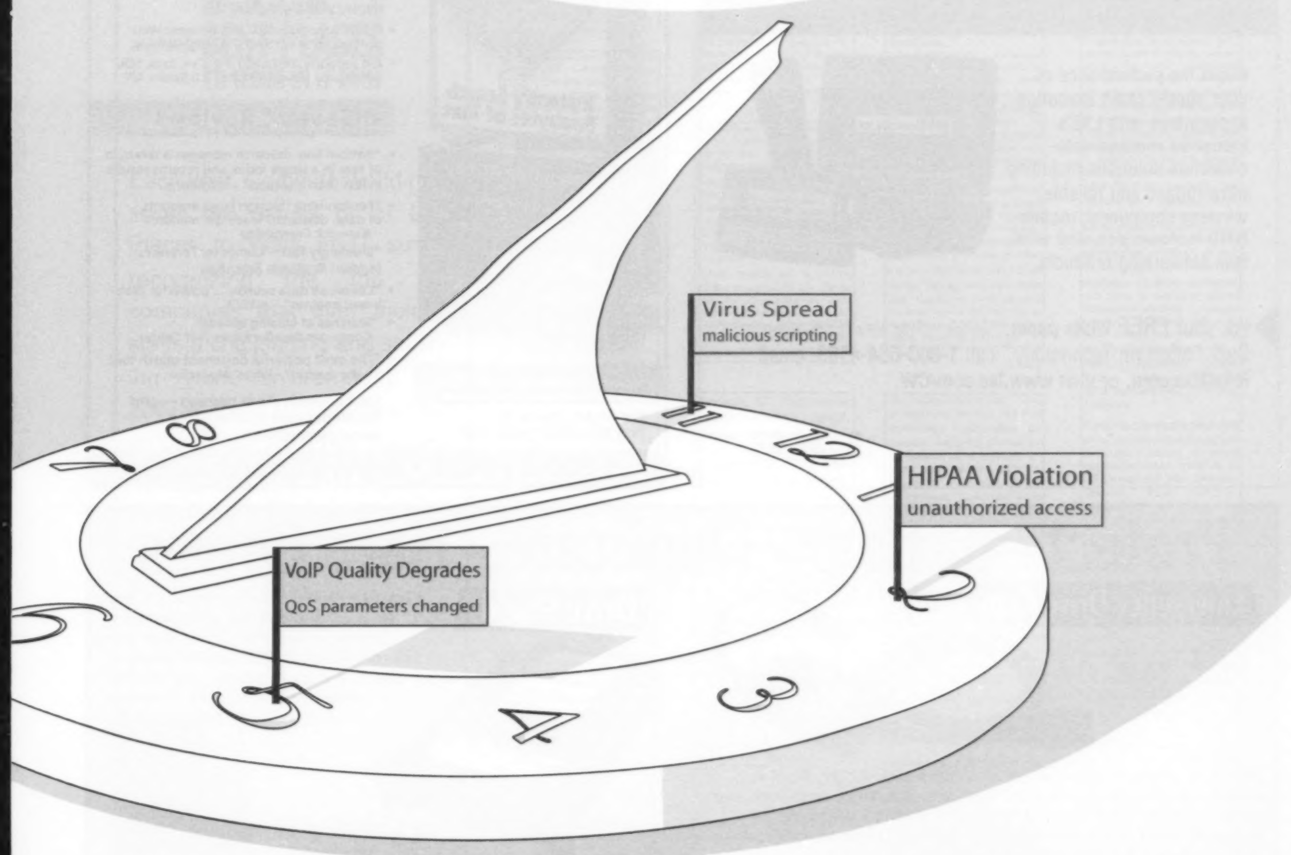
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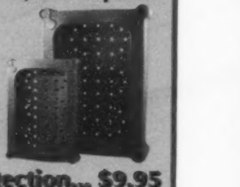

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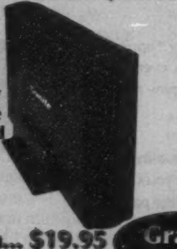

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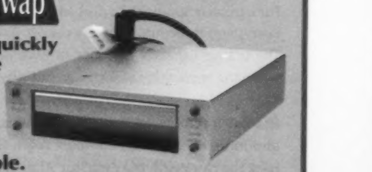

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ITIL

process of developing the updated specification.

ITIL is a set of publications that originated within the U.K. government in the 1980s and is now managed by the U.K. Office of Government Commerce (OGC). Betz, who asked that his employer not be identified, said he thinks it's time for control of the guidelines to be shifted to a professional organization with a membership-based governance model, such as the IT Service Management Forum (ITSMF).

"The fact that ITIL has emerged as such a prominent [source of] guidance and is not owned by a professional organization is indicative of the IT industry's immaturity as a profession," Betz said.

Keeping Vendors at Bay

But David Cannon, one of the lead authors of a new book on "service operation" that is part of the ITIL Version 3 release, said it's the very immaturity of the IT industry that has made the U.K. government's continuing role in the ITIL process particularly important.

Having ITIL controlled by a government agency puts the specification at less risk of being affected by the maneuvering of companies within the industry, argued Cannon, who is a principal consultant in Hewlett-Packard Co.'s IT service management practice.

"I think it has been in everybody's best interest that the U.K. government has had stewardship," he said, adding that the OGC has provided "a greenhouse" for the continued growth of ITIL.

Andy Atencio, chief information technology officer for the city of Greenwood Village, Colo., served as a reviewer for a portion of the new version of ITIL. Atencio echoed Cannon's comments, saying that taking control of the specification away from the U.K. government may make it "more susceptible to being corrupted by technologies or vendors."

ITIL Version 3

What it does: ITIL v3 replaces a seven-year-old version of the service management specification that was focused on IT operations and processes.

What's really different: The update also covers strategic IT issues, such as improving IT and business alignment and measuring the ROI of projects.

New areas: Security best practices were expanded, and outsourcing was added. ITIL v3 also addresses vertical industries, such as financial services.

With ITIL Version 3, the OGC has reduced the number of books detailing the guidelines from nine to five. Nonetheless, the update adds to existing sections of the specification and expands into some new areas that have become major IT concerns over the past seven years, such as outsourcing and data security.

Atencio said the new release is far more prescriptive about telling users how to implement ITIL-based processes than earlier versions were. That should make it easier for smaller IT organizations to adopt the service management specification, he predicted.

Stephen Hoadley, who heads the ITSMF USA's local interest group in Boise, Idaho, said he expects ITIL Version 3 to be easier to combine with other IT management standards than the previous release was. "That's kind of what I'm hoping for," said Hoadley, a service-level manager at Albertsons LLC, a grocery store chain based in Boise.

One of the standards that ITIL Version 3 is supposed to be more closely aligned with is Cobit, formally known as Control Objectives for Information and Related Technology. Companies are increasingly using Cobit, a framework for governing IT and evaluating internal system controls, to help with their Sarbanes-Oxley Act compliance procedures.

Michael Cardinal, a business analyst at State Farm Insurance Cos. in Bloomington, Ill., said he isn't expecting copies of the new ITIL books to fly off the shelves in the U.S., because companies here have been relatively slow to adopt the guidelines compared with their counterparts in Europe.

Cardinal, who is also on the board of directors of the ITSMF USA, added that a company's level of interest in Version 3 may well depend on how far along it is in implementing ITIL overall.

Vendors that make their living off of IT service management will be the first to adopt the latest release of the specification, he predicted. But for most users, Cardinal said, "I think it's going to take a little while for it to settle in." ◆

IT Group Says Online Election May Have Been Compromised

E-mail cites possible database access, says voting process is being probed

BY PATRICK THIBODEAU

An online election that was held last October to choose a new board of directors for the U.S. chapter of the IT Service Management Forum (ITSMF) may have been compromised, and the professional association is now investigating the voting process.

Leah Palmer, president of the ITSMF USA, informed the Pasadena, Calif.-based group's 7,000 members of the investigation in an e-mail message sent last week. *Computerworld* obtained a copy of the e-mail.

"It appears that an individual, or individuals, is attempting to interfere with the itSMF USA's governance process and has obtained information from [our] database to accomplish this objective," Palmer wrote.

In the e-mail, Palmer didn't say what triggered the investigation or whether she thinks the election results were actually affected by the apparent breach. But she made it clear that the issue of the election's validity is being examined.

"If the elections process has been compromised, all necessary efforts will be made to correct the situation," Palmer wrote. She added that ITSMF officials are exploring alternative IT approaches to help "secure voting in the future."

Ongoing Investigation

According to the e-mail, the ITSMF USA is working with its legal counsel and outside service providers as part of the investigation, which will include an assessment and audit of the group's database. Sources within the organization said that someone with computer forensic skills is also helping with the probe.

Palmer, who couldn't be reached for further comment, told ITSMF USA members in her e-mail that there was no breach "of any of the payment and dues-processing aspects" of the group's IT systems. She also wrote that she would keep members "aware of the actions we are taking . . . to ensure that your information is and remains secure."

The ITSMF is an international organization managed out of an office in Wokingham, England, that promotes the adoption of IT service management standards and best practices, such as the IT Infrastructure Library (ITIL). The election issue involves the ITSMF's U.S. chapter only.

Palmer's message was discussed at a board meeting of the ITSMF's local interest group in Los Angeles last week. Keith Belyea, who is a member of that group's board, said the news about the possible online voting compromise was both confusing and sad, especially for an organization run by volunteers. But Belyea, an ITIL consultant at Alert Performance Management Ltd. in Irvine, Calif., added that he's confident that the issue will be resolved.

> If the elections process has been compromised, all necessary efforts will be made to correct the situation.
>
> LEAH PALMER, PRESIDENT OF THE ITSMF USA, IN AN E-MAIL SENT TO THE GROUP'S MEMBERS

Belyea, like some other ITSMF members who were contacted last week, said he had only a sketchy idea of what might have happened, although he doesn't believe the online voting system was randomly hacked. "It seems that this is a deliberate attempt by someone familiar with the organization," he said.

Dennis Ravenelle is an independent IT and management consultant in Boston who was appointed to the ITSMF USA board early last year to fill a vacancy. He ran for one of the five open seats in the October election but lost.

Ravenelle said he has "a great deal of confidence in our president and our board to investigate this and get to the bottom of this and deal with it appropriately and correctly." ◆

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THE BACK PAGE

FRANK HAYES ▪ FRANKLY SPEAKING

Kaffeeklatsch PC

AND NOW, the Microsoft coffee table. Don't kid yourself; Microsoft *is* going into the furniture business. The product that Microsoft unveiled last week under the name "Surface" isn't a technology, a reference design, a user interface, an application, a PC or an appliance. It's furniture. And yes, that really is the business Microsoft intends to get into.

Why? Maybe because after years of bleating about "Microsoft innovation," someone in Redmond finally understands why that's an oxymoron. The IT industry hates real change — and big and powerful as it is, Microsoft can't move the entire IT industry.

But move furniture? Now *that's* a possibility.

In case you've somehow missed hearing about it, Surface is a 42-by-21-in. coffee table with a large touch screen built into the top. Several users can work on it at once, without an external keyboard or mouse in sight.

Yes, it runs Windows Vista, and it has Ethernet, Wi-Fi and Bluetooth connectivity. But as a PC, it's a terrible idea. Giant touch screens are miserable to use for office applications. And that's what PCs are for, right?

In a nutshell, that's the Microsoft innovation problem. As long as Microsoft only sells software, the rest of the IT industry has to make the hardware for it. But everyone knows what hardware runs Microsoft software: PCs. And PCs are optimized for office applications. So to play to its installed base, Microsoft can't stray far from the same old stuff.

And Microsoft can't get into the PC hardware business either, because that would risk alienating its biggest customers. High-end mice and keyboards from Microsoft? Sure — but not PCs.

Thus, the Xbox game console — Microsoft hardware that doesn't antagonize Hewlett-Packard, Dell or Lenovo.

And thus, the Microsoft coffee table. Like the Xbox, Surface is built and sold by Microsoft. It isn't a reference design that Microsoft will license to other vendors so they can add in Microsoft software. That's the business model for Microsoft's cash-cow products, but that business is slowly running dry.

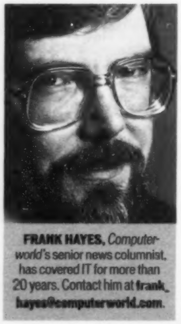
True, Microsoft will have to come up with applications that are tailored for furniture. But because Microsoft controls the hardware, that's not so hard to do. If something needs a big change, Microsoft doesn't have to get the whole IT industry and its entire installed base to go along.

Weird as it sounds, in the IT business, Microsoft is an 800-pound gorilla chained to a million-ton mountain. But in the furniture business, Microsoft is just one more little guy — and the master of its destiny.

If all this seems a bit removed from what corporate IT does, it is — at least for now. Only a few casinos, hotels and retailers will get Surfaces this year, and their IT staffs will doubtless treat these coffee tables as the specialty items they are.

And there's no guarantee any other IT people will ever have to worry about them. At $5,000 to $10,000 per table, Surface could wind up being the wrong furniture at the wrong price, and another expensive dead end for Microsoft.

But don't get complacent. Microsoft plans to push Surface as a consumer product eventually, once it gets the price down. (Adjusted for inflation, Surface actually costs about the same as an IBM PC when it was rolled out in 1981.) That could drive Surface into our reception areas and executive offices.



FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com**.

And what Microsoft learns from Surface could well show up in other Microsoft products we use, both software and hardware. That makes it worth keeping an eye on.

Maybe most important, Microsoft's coffee table business might be the first clear sign of a very different, much less predictable Microsoft. A genuinely innovative Microsoft, yes, but also a Microsoft with even more control over how fast it can move to change its products — and how fast we'll have to move to keep up.

Which could mean that very soon, we'll be needing a *lot* more coffee. ▸

A Little Knowledge

New coordinator at this county lockup says he can't log into the network. "The help desk tech asks him to verify his password, make sure the caps lock is not on and try again," reports a pilot fish watching it all. "User says it's still not working. When tech arrives, the user points to the open space under his desk and says, 'See, I can't log in.' Tech explains that not able to log in and not having a computer are two separate issues – then gets a PC installed and teaches new coordinator how to log in."

SHARK TANK

Who?!?

Executive gets his first BlackBerry and decides to test it by e-mailing himself. But to his dismay, the e-mails appear to come from a maintenance worker who doesn't have a user account on the e-mail system. "In a panic, he called IT," says a pilot fish who takes the call. "After five minutes of research, we found that the executive had created a contact in Outlook with the maintenance worker's name but the executive's own e-mail address. I deleted the contact, and the executive was relieved that the maintenance worker was not spying on him."

Oh, That's Who

Flash back to the early '90s, when this office has internal e-mail, but e-mail to the outside world is available only to IT people and upper-level management. "One day the receptionist, a very nice older woman, took a phone message for me from someone leaving an e-mail address," says pilot fish who's one of the lucky few. It took me a moment or two to figure out the address, which she had carefully written for me as JOHNUNDERSCORE-SMITHATMYUNDER-SCORECOMPANYDOT-COM. I never told her the correct way to write it, but I often wondered after the whole office got Internet if she realized what she did."

Who Needs It?

C-level executive calls the help desk complaining that she can't log into the company's wireless network with her laptop. "Other users were able to connect, so one of our techs checked it out," says a pilot fish on the scene. "He discovered that the wireless radio on her laptop had been disabled. He enabled the radio and she was able to log in. When he asked her if she knew why it was disabled, she said, 'I don't like to listen to the radio while I'm working, so I turned it off.' "

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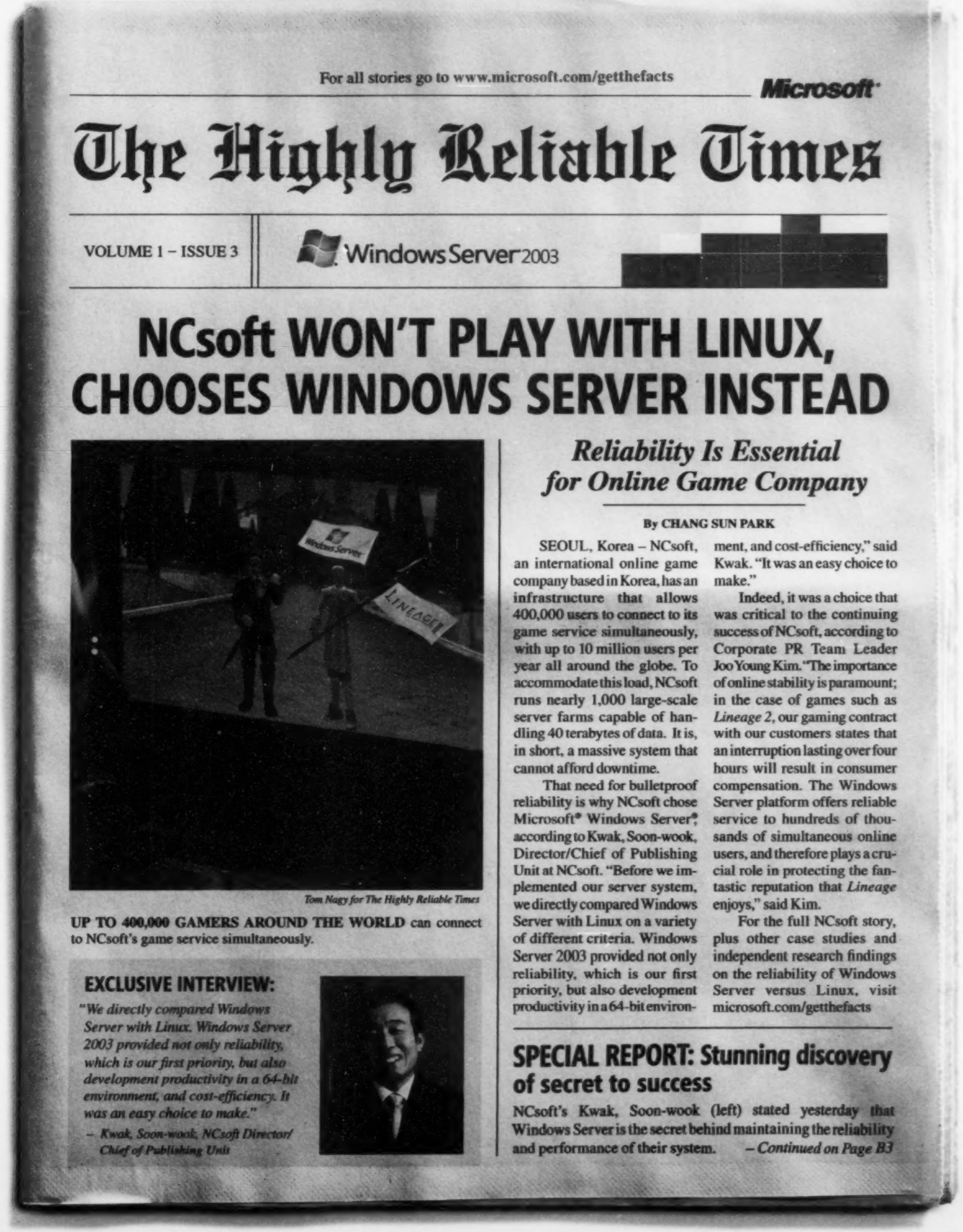

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The Highly Reliable Times

VOLUME 1 – ISSUE 3

Windows Server 2003

NCsoft WON'T PLAY WITH LINUX, CHOOSES WINDOWS SERVER INSTEAD

Windows Server
LINEAGE II

Tom Nagy for The Highly Reliable Times

UP TO 400,000 GAMERS AROUND THE WORLD can connect to NCsoft's game service simultaneously.

Reliability Is Essential for Online Game Company

By CHANG SUN PARK

SEOUL, Korea – NCsoft, an international online game company based in Korea, has an infrastructure that allows 400,000 users to connect to its game service simultaneously, with up to 10 million users per year all around the globe. To accommodate this load, NCsoft runs nearly 1,000 large-scale server farms capable of handling 40 terabytes of data. It is, in short, a massive system that cannot afford downtime.

That need for bulletproof reliability is why NCsoft chose Microsoft® Windows Server®, according to Kwak, Soon-wook, Director/Chief of Publishing Unit at NCsoft. "Before we implemented our server system, we directly compared Windows Server with Linux on a variety of different criteria. Windows Server 2003 provided not only reliability, which is our first priority, but also development productivity in a 64-bit environment, and cost-efficiency," said Kwak. "It was an easy choice to make."

Indeed, it was a choice that was critical to the continuing success of NCsoft, according to Corporate PR Team Leader Joo Young Kim. "The importance of online stability is paramount; in the case of games such as *Lineage 2*, our gaming contract with our customers states that an interruption lasting over four hours will result in consumer compensation. The Windows Server platform offers reliable service to hundreds of thousands of simultaneous online users, and therefore plays a crucial role in protecting the fantastic reputation that *Lineage* enjoys," said Kim.

For the full NCsoft story, plus other case studies and independent research findings on the reliability of Windows Server versus Linux, visit microsoft.com/getthefacts

EXCLUSIVE INTERVIEW:

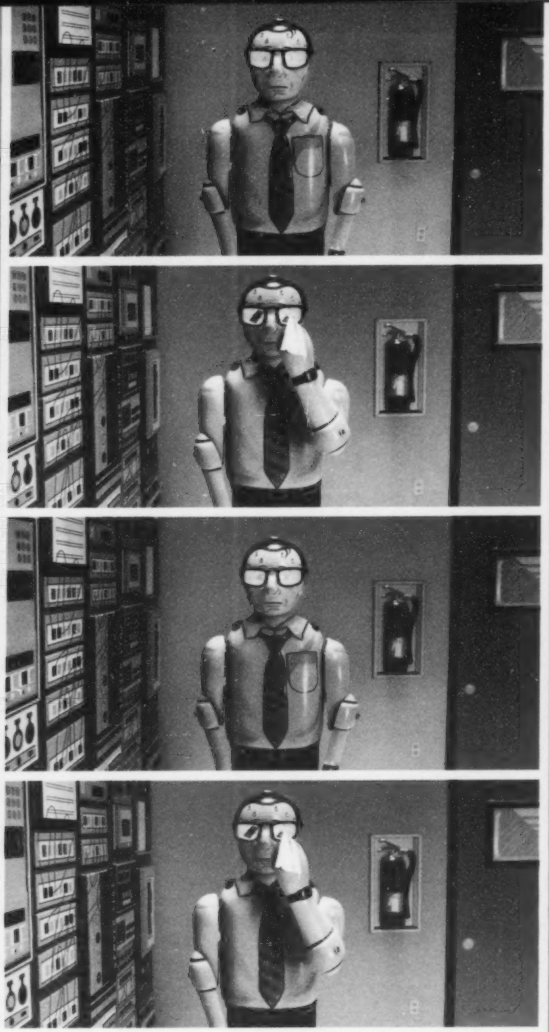
"We directly compared Windows Server with Linux. Windows Server 2003 provided not only reliability, which is our first priority, but also development productivity in a 64-bit environment, and cost-efficiency. It was an easy choice to make."

– Kwak, Soon-wook, NCsoft Director/ Chief of Publishing Unit

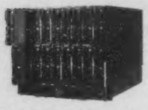
SPECIAL REPORT: Stunning discovery of secret to success

NCsoft's Kwak, Soon-wook (left) stated yesterday that Windows Server is the secret behind maintaining the reliability and performance of their system.

– Continued on Page B3



AMD 64 Opteron



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